Appendix I: The Relevant Planning Framework in Scotland

FC Scotland prepares Land Management Plans within the following planning framework:

1. The National Level

Document name: **The Scottish Government's Scotland Performs 2007 – Present**

Document purpose: Reports on the Scottish Government's attempts to create a more successful country through the seven purpose targets.

Document name: **The Scottish Government's Land Use Strategy 2011 – Present**

Document purpose: Takes a strategic approach to achieving a more sustainable and integrated approach to land use in Scotland. Focusing on common goals for different land users it provides a set of principles for use as a policy guide and decision making tool.

Document name: **The Scottish Forestry Strategy 2006 – 2016**

Document purpose: Describes how the Scottish Government will deliver its forestry policies in Scotland and sets out the priorities for the next five to ten years.

Intended audience: Local Forestry Commission Scotland team; Forestry Commission conservancy team; key stakeholders; statutory consultees; general public.

2. The Regional Level

Document name: **Highland Forest & Woodland Strategy 2006 - Present (Consultative Draft)**

Document purpose: Provides a regional expression of the Scottish Forestry Strategy, describing priorities and programmes for using trees, woodlands and forestry to help meet the needs of the Highlands.

Intended audience: Local Forestry Commission Scotland team; key stakeholders; statutory consultees; general public.

3. District Level

Document name: **The Forest District Strategic Plan 2013 – 2019 (draft, in press)**

Document purpose: Serves as a guide to the management of forests within North Highland Forest District. It ensures that forestry activities reflect the local, economic, social and ecological individuality of the forests. Strategic objectives are presented within the context of the Scottish Executive's strategic priorities for forestry in Scotland (e.g. to create a diverse forest resource for the future; make a positive contribution to the environment; to help communities benefit from woods and forests).

Intended audience: Local Forestry Commission Scotland team; key stakeholders; statutory consultees; general public.

4. The Forest Level

Document name: **The Land Management Plan (Covering a ten year period from date of approval)**

Document purpose: Takes a holistic view of integrated land management at the landscape scale, outlining the medium to long term strategic direction for integrated land management across the public estate.

Intended audience: Local Forestry Commission Scotland team; key stakeholders; statutory consultees; general public.

5. Coupe Level

Document name: **Work Plans (permanent coupe record)**

Document purpose: Each forest operation has a related Work Plan. At production of this plan, local staff will identify site specific interests and outline the constraints and opportunities that are relevant to the coupe at an operational scale not detailed in the LMP. Forms the record of all decisions made regarding coupe management.

Intended audience: Local Forestry Commission Scotland team; key stakeholders; statutory consultees where required;

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:	Easter Ross Forests
Nearest town, village or locality:	Tain
OS Grid reference:	NH 7030 7811
Local Authority district/unitary Authority:	Highland Council

Areas for approval

	Conifer	Broadleaf
Clear felling	584.0	0.0
Selective felling	0.0	0.0
Restocking	446.6	232.5
New planting (complete appendix 4)	0.0	60.1

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 2nd May 2013

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 Neil McInnes

For Forest District Manager
North Highland Forest District
……

Signed ……

For Conservator
H&I Conservancy

Date 16/12/13 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	Easter Ross LMP
GRID REFERENCE	NH 7030 7811
IS THE LOCATION OF THE PROPOSED WORKS WITHIN A "SENSITIVE AREA", AS DEFINED IN THE REGULATIONS? IF SO, WHAT TYPE OF SENSITIVE AREA?	No – all proposed spurs fall outwith the Morangie Forest SPA
IF OPERATION IS AFFORESTATION, DEFORESTATION OR FOREST QUARRIES, WHAT AREA IS INVOLVED?	
IF OPERATION IS FOREST ROADS, TRACKS OR PATHS, WHAT IS SPECIFICATION AND WHAT LENGTH & WIDTH IS INVOLVED?	**Forest Road Construction (CAT 1a)** **West Strathrory Spur** – 1443m long– 15m wide at NH 6538 7994 **Wallace Hill Spur** – 611m long– 15m wide at NH 6682 7569 **Badachonacher Spur** – 1559m long – 15m wide at NH 7137 7485
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 – Roading is spur continuation of existing roads.
PROPOSED TIMING	**Roading – 2013 to 2023**
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 roading.
WATER	No impact
RECREATION / ACCESS	Not affected.
PEOPLE	No issues forseen
OTHER INFORMATION	None
SIGNED & DATED	Neil McInnes – 16/12/13

REQUEST FOR DETERMINATION UNDER THE E.I.A. (FORESTRY) (SCOTLAND) REGULATIONS 1999	
OPERATION	New Planting (See map 7 – CSM6)
LOCATION	Cnoc an t-Sabhail, Morangie Forest
GRID REFERENCE	NH 7262 8171
IS THE LOCATION OF THE PROPOSED WORKS WITHIN A "SENSITIVE AREA", AS DEFINED IN THE REGULATIONS? IF SO, WHAT TYPE OF SENSITIVE AREA?	Within Morangie Forest SPA – no negative impact anticipated. Habitat creation (treeline woodland of native character) likely to benefit notified species.
IF OPERATION IS AFFORESTATION, DEFORESTATION OR FOREST QUARRIES, WHAT AREA IS INVOLVED?	60.1 Ha of afforestation – Cnoc an t-Sabhail new native woodlands.
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 – 2013 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	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 woodland softening existing treeline.
WATER	Positive impact anticipated by improving water quality and aquatic habitat through the establishment of appropriate NVC type riparian woodland.
RECREATION / ACCESS	No impact.
PEOPLE	No impact.
OTHER INFORMATION	None
SIGNED & DATED	Neil McInnes – 16/12/13

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:	Easter Ross LMP
Nearest town, village or locality:	Tain
OS Grid reference:	NH 7262 8171
Local Authority district/unitary Authority:	Highland Council

2. Proposed areas to nearest tenth of a hectare

New Planting	30.0 Ha
Open Ground	30.0 Ha
Total	60.0 Ha

3. Special areas and protected land

Designation	Area Name or Number	Comments
SPA	Morangie Forest	Positive impact on designation by creation of treeline native woodland

4. Proposal details of new planting

Area Name or number	Gross Area (Ha)	P Year	Spp	Area (Ha)	Open Ground (Ha)	Field Identifier	Comments
NH 7262 8171 Cnoc an t-Sabhail	60.0	2014	SP/MB	30.0	30.0	n/a	Mixed Native Woodland of NVC appropriate to site
Total=	60.0			60.0			

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.

Signed **Neil McInnes** for FDM Signed.....Conservator

District **North Highland FD** H&I Conservancy .....
Date 16 December 2013

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

APPENDIX II: KEY POLICIES AND GUIDANCE

- UK Forestry Standard 2011
- UK Woodland Assurance Standard 2012
- Equality Act 2010
- Control of Substances Hazardous to Health Regulations 2002
- Provision and Use of Work Equipment Regulations 1998
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995
- The Highways act 1980
- Management of Health and Safety at Work Regulations 1999
- Health and Safety at Work Act 1974
- Occupier's Liability (Scotland) Act 1960
- Land Reform (Scotland) Act 2003
- Employers Liability (Compulsory Insurance) Act 1969

- UK Forestry Standard 2011
- UK Woodland Assurance Standard 2012
- Policy on Control of Woodland Removal 2008
- Environmental Impact Assessment (Forestry) (Scotland) Regulations 1999

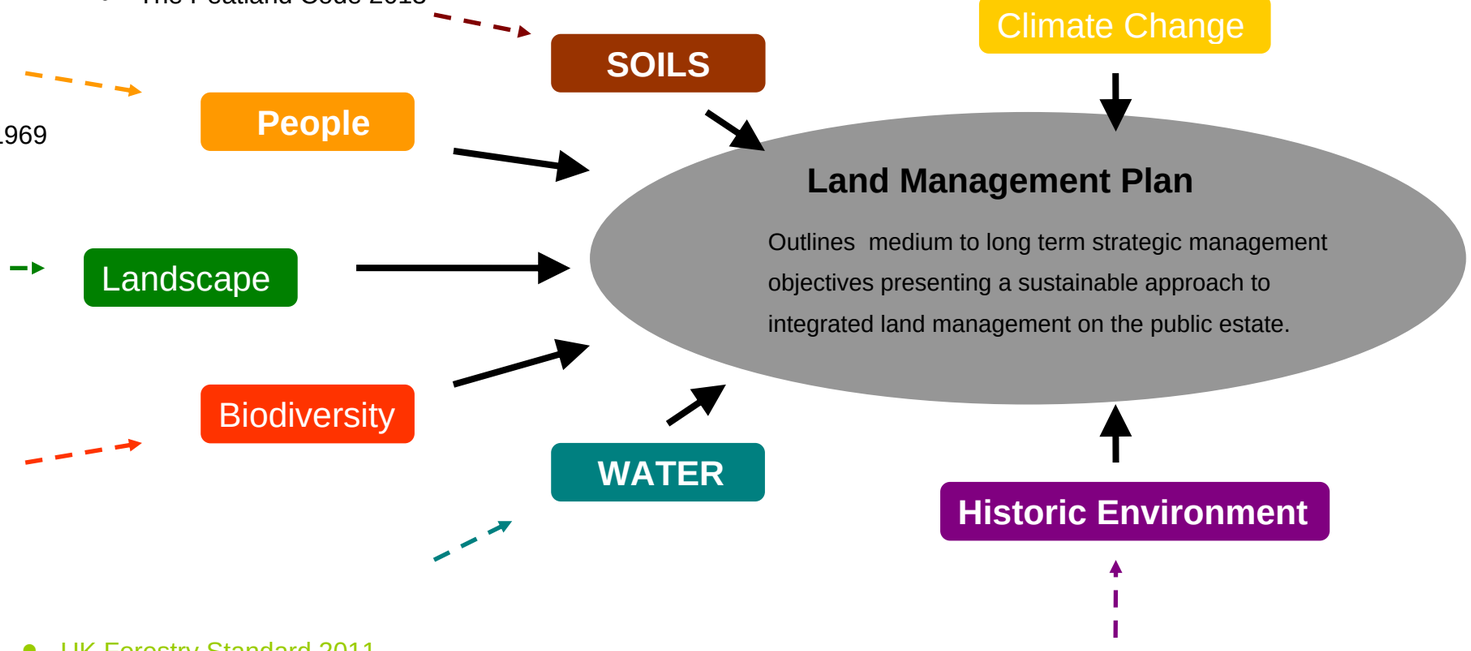
- UK Forestry Standard 2011
- UK Woodland Assurance Standard 2012
- Wildlife and Natural Environment (Scotland) Act 2011
- Conservation (Natural Habitats) Amendment (Scotland) Regulations 2007
- Nature Conservation (Scotland) Act 2004
- Deer (Scotland) Act 2003
- Protection of Badgers Act 1992
- EC Birds Directive 2009
- Convention on Biological Diversity 1992
- EU Habitats Directive 1992

- UK Forestry Standard 2011
- UK Woodland Assurance Standard 2012
- World Soil Charter
- European Soil Charter
- The Waste Management Licensing Regulations 1994
- Control of Pesticides Regulations 1986
- Integrated Pollution Prevention and Control Directive 2008
- Environmental Liability Directive 2004
- Control of Pesticides Regulations 1986
- The Scottish Soil Framework 2009
- The Peatland Code 2013

- UK Forestry Standard 2011
- UK Woodland Assurance Standard 2012
- EU Water Framework Directive 2000
- Water Environment and Water Services (Scotland) Act 2003
- Water Environment (Controlled Activities) (Scotland) Regulations 2005
- Water Environment (Diffuse Pollution) (Scotland) Regulations 2008
- Environmental Protection Act 1990

- UK Forestry Standard 2011
- UK Woodland Assurance Standard 2012
- The UN Framework Convention on Climate Change
- The Kyoto Protocol
- EC Directive 2003/87/EC
- Climate Change (Scotland) Act 2009

- UK Forestry Standard 2011
- UK Woodland Assurance Standard 2012
- UNESCO World Heritage Convention
- Ancient Monuments and Archaeological Areas Act 1979
- European Convention on the Protection of the Archaeological Heritage Valetta 1992
- Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997
- Treasure Trove Scotland



Appendix III: Forest Design Plan Consultation Record (External)

Statutory Consultee	Date contacted	Date response received	Issue raised	Forest District Response (Incl amendments made to plan as a result of consultee comments)
Kilmuir & Easter Logie Community Council	13/02/13	24/06/13	A report was prepared by the secretary following our CC tour of 20 June detailing the issues affecting forest management across the area. No further comment was received.	The proposals in this plan reflect the issues discussed at the meeting of 20th June 2013 and no further points have been raised by the CC.
Tain Community Council	13/02/13	17/03/13	Clearer linkages (signposting) across the wider area should be considered Consider building a mountain bike trail in Morangie Offer opportunities for motorbikes to use the forest following the Snowman Rally. Land at Cnoc an t Sabhail should be noted in the plan as proposed for a community windfarm.	The request for further waymarking has been passed to the CRT Manager for her to take forward with the community and the Moss Road link should be upgraded to improve the access to the forest from Tain outskirts. There are currently no resources for building an MTB trail, given current economic conditions. Research is showing that high recreation use has a negative effect on capercaillie and therefore we cannot legally consider extensions to the trail network within the SPA. The CRT Manager is open to approaches from constituted motorsports clubs regarding access however the point above re capercaillie disturbance should be noted. It is not within the scope of this plan to anticipate HC Planning Committee decisions and any future windfarm developments would have to seek approval for woodland removal.
Ardross Community Council	05/03/13	25/03/13	Residents at Achnacloich retain water extraction permissions. Fences are in poor condition and residents are concerned that shooting is carried out on a Sunday. Access for recreation should be preserved and enhanced, particularly opening up views to the north and south along the top of Morangie Forest. Felling and restock should follow current industry best practice and an increase in broadleaf species would be desirable. FCS should consider hydro as an alternative to current windfarm plans.	The water supplies are noted and protection will be afforded during forest operations where the supplies are clearly marked. Deer fences will only be maintained where absolutely necessary with NHFD working with neighbours to identify landscape scale strategic fences. The Deer Management team has instructed all contractors, lease holders and direct employees not to shoot on Sundays. All silvicultural operations and proposals follow UKWAS/UKFS and industry best practice relevant at the time of that operation. It is not within the scope of this plan to identify sites of, or methods for, electricity generation. Any proposals for schemes will be managed by the Forest Liason Officer through the Planning System, with full public consultation.
Edderton Community Council	13/02/13	29/03/13	A public meeting was held at Edderton Village Hall on 29/03/13 and the CC Chair attended. He raised the issue of landscape views from the Struie being blocked by woodland and note caution in terms of the scale of Struie clearfell.	Landscape proposals will ensure the opening up of views and future clearfells will be limited except in the case of forest health operations.

Scottish Natural Heritage (Dingwall)	05/03/13	15/03/13	Highlighted Morangie SPA, Dornoch Firth and Loch Fleet SPA, Dornoch Firth and Morrich Mor SAC, Morrich Mor SSSI, Loch Achnacloich SAC, Pitmaduthy Moss SAC, Kinrive – Strathrory SSSI, Struie Channels SSSI and Dornoch Firth NSA. Species specifically mentioned were capercaillie, osprey, wildfowl and waders, seals, otter, bats, badgers, red squirrel, water vole and wildcat. Habitats specifically noted were eutrophic lochs, fen, coastal geomorphology and quaternary geology (meltwater channels)	The species and habitats noted are recognised as important by NHFD. The proposals are designed to follow all current (and subsequent) guidance on management of these species and habitats, so conservation objectives are a high priority for this plan area.
Highland Council Forestry Department	03/06/13	-	No response received	-
Highland Council TEC Services	03/06/13	17/06/13	Concern has been raised over the Brenachie Road – currently an approved haulage route but suffering from disrepair – assumed to relate to timber traffic.	The annual haulage across this road will be limited to 5k tonnes per annum and although we cannot restrict this to summer working due to capercaillie, we will ensure that haulage follows best practice with the use of CTI, a minimum of 20 minutes between lorries etc.
Cromarty Firth Fishery Board	03/06/13	11/06/13	The Balnagown River and associated watercourses are of particular interest and obstructions to fish passage generally across the plan area should be addressed. Would like to see large scale restoration of riparian woodland and possibly the introduction of large woody debris at trail sites. Additionally would be interested in working in partnership with FCS on a large scale upper catchment project for the Balnagown.	Riparian restoration is a key aim of this plan and will improve biodiversity generally over the plan area. FCS Species Ecologist and local NHFD Environment staff will continue to work with fishery boards to assess the effect of large woody debris placement and we are open to proposals for suitably licensed projects in this plan area.
Kyle of Sutherland District Fishery Board	03/06/13	-	No response received	We will endeavour to protect the fishery waters and enhance riparian woodland. In addition we note the water abstraction points highlighted by SEPA.
RSPB	03/06/13	-	No response received	See comments re SPA management throughout
Highland Council Access Officer (Ross-shire)	03/06/13	05/06/13	Issues raised included: review of any locked gates to ensure suitable access can be taken (e.g. Morrich Mor) Maintenance or improvement plans for any recreational facilities should be included. Operations should be undertaken on a 'minimum time/minimum area' basis and core paths should not be closed.	The inspections of gates and access points is an ongoing project and should be complete by August 2014, in time to inform the business plan for necessary works. The maintenance schedules for facilities is not within the scope of this plan and is reliant on annual budgets being approved. Details for any one year can be provided by the CRT manager on request. FCS are currently negotiating with HC and other stakeholders regarding the closure/management of core paths during forest operations and until those negotiations are concluded Operations will proceed on the basis that the Health and Safety at Work Act 1974 takes precedence. Any disruption will be managed within access legislation and minimised. CRT staff will communicate regularly with Access managers.
Scottish & Southern Energy	03/06/13		The removal of trees from within falling distance of the transmission and distribution network infrastructure should be achieved with as little delay as possible in line with Forest Industry Safety Accord guidance and industry best practice. Reasonable notice for shutdowns to affect felling adjacent to infrastructure would be appreciated.	Standard wayleave management will apply and utility companies will be contacted prior to felling for shutdown requirements as per current operational procedures. Where OHPL infrastructure exists restocking will avoid creating future problem areas.

SEPA	03/06/13	28/06/13	Generic advice received regarding water quality protection, waste and soils protection. Waterbodies negatively affected by forestry were noted and two obstructions to fish passage were noted on the Pollo Burn.	Pollo Burn obstruction has been removed (One not on our land). The proposals within the plan are in accordance with the actions requested at scoping.
Highland Council Archaeology	03/06/13	04/06/13	Given recent new finds on the plan area periphery it may be likely that there are still undiscovered sites within the forest. Pre operations surveys must be undertaken. The designated sites within the plan area should be cleared of trees and or vegetation and suitable buffers should then be set up around the sites.	The Environment team will undertake thorough pre-ops surveys as requested and all new findings will be recorded and communicated to the FCS Archaeologist. We will incorporate the comments made into future workplans. Designated sites (12 in the plan area) will be managed in accordance with the Scheduled Ancient Monument Plans agreed with Historic Scotland (these are appended to this plan as supporting documents)
Advertisement in Ross-shire Journal inviting comment.	20/03/13	-	No replies received	-
Easter Open Meetings	28/03/13	Duthuc Centre Tain	Views generally supportive of LISS and conservation management although some concerned expressed that the Lamington/Scotsburn residents would be affected by more clearfells on adjacent land. Interest expressed in extent of rhododendron clearance adjacent to Tarlogie. Tain rifle club asked that future felling be limited around the rifle range.	The views from the Struie public road will open as forest health felling continues and the majority of the area will not be restocked to preserve the geomorphology of the SSSI. However extensive native woodland planting has been undertaken on adjacent private land and this will affect views as it becomes established. Increases in broadleaf species are proposed within this plan. Future felling proposals include LISS along the Lamington and Scotsburn areas of the plan so residents will not be affected by clearfelling operations. Sunday shooting is not undertaken by FCS Rangers, lease holders or contractors and this will be rigorously controlled.
	29/03/13	Village Hall Edderton	Increase in broadleaf species requested. Views of the Struie Meltwater Channels should be improved and views across them to the Dornoch Firth should be improved. General comment was supportive and the opportunity to explain forest health issues was well received by attendees.	
	01/04/13	Village Hall Ardross	Attendees interested in future felling proposals, deer management (Sunday shooting complaint) and the proposals for restocking.	
Visitor Monitoring Surveys Aldie Burn and Tain Hill	25/5/13	25/5/13	Most respondents interviewed by our ranger were happy with the facility provision. There were some requests for more dogfoul bins, grit on the car park access in winter and repair of car park surface.	The concerns of the visitors have been passed to CRT staff. The car park is currently being upgraded and other operational issues will be dealt with through business planning.

Appendix IV – FDP Internal Scoping Consultation

An internal scoping meeting was held on 2nd May 2013 at the NHFD Forest District Office, Golpsie with the following officers in attendance:

Tim Cockerill	Forest District Manager
Graeme Findlay	FD Environment Manager
Peter Mackay	Ross-shire Stewardship Forester
Neil McInnes	Planning Forester
Hazel Maclean	CRT Manager
Malcolm MacDougall	Planning Manager
Hugh Mackay	Programme Manager
Avril Maclennan	Planning Forester
Gareth Ventress	Environment Ranger
Ian Allsop	Operations Forester

Issues highlighted were as follows:

- A full review of coupes was undertaken and HM noted the coupes now in business planning that ideally shouldn't change.
- A review of the stakeholder list was undertaken and neighbours confirmed. CRT will distribute letters to local households and a public notice has been placed in the Ross-shire Journal inviting comments Open meetings will be scheduled and close liaison with Community Councils is preferred.
- A review of designations and other environmental constraints took place and GF noted the presence of a number of European Protected Species and five of the six tier one FCS priority species. PAWS noted. The plan area is a significant pinewood refuge for capercaillie and red squirrel and there are important areas of natural reserve.
- Water quality was highlighted as a fundamental issue and suitable riparian woodland must be put in place.
- Deer pressure is moderate and cross boundary arrangements are in place. Deer fencing is generally discouraged due to woodland grouse populations and the emphasis should be on strategic, landscape scale fencing.
- CRT confirmed the locations of FCS facilities, core paths and Public Rights of Way. Visitor zoning should be included for these facilities and the rights of way should be protected. Expansion is unlikely due to conservation designations.
- The OHPL running alongside the county road at Redburn is becoming overgrown. Some felling should be proposed that deals with this issue. This will allow opportunities for juniper plantings and will also contribute to a native woodland corridor along the road.
- Morangie Forest should be maintained as a LISS production trial site and this area should be expanded where silviculturaly appropriate to enhance habitats.
- There is an opportunity to expand native treeline woodland on areas at the hilltop of Morangie. The Open Habitat Ecologist has surveyed the site and confirmed suitable areas

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), Andy Kennedy (Soils surveyor), Jeff Waddell (Open Habitats Ecologist) and Renate Jephcott (FCS Landscape Architect North) to clarify issues and proposals.

Appendix V: Management Prescription Types

The future habitat management for North Highland FD forest design plans is visualised on the plan maps as zones of proposed management prescriptions. These management prescription types are detailed in the table below and further detail is provided in **Appendix 10 – Productive Forestry Prescriptions** and **Appendix 11 – Native Habitat Prescriptions**.

Management Prescription Type	Stocking Details at Initial Planting	Management Type Detail
Productive Conifer Woodland (See Appendix X for detailed species prescriptions)	2500 – 3500 stems per hectare 70% area conifer species 10% area managed open space 20% area broadleaf species	Primarily comprising conifer species in a silvicultural mixture appropriate to site soils and climate. The aim of this management type is to produce softwood by clearfelling for sawlog, small roundwood and biomass markets. The broadleaf element will generally be concentrated around archaeological and recreation sites however on sites with limited nutrition an increased broadleaf element will be included as part of the silvicultural mixture to contribute to site improvement (for example 10% downy birch in a sitka/larch mixture. Open ground will be incorporated around archaeological and recreation sites and as unplantable (for example rocky) ground throughout the coupe. Strenuous effort will be made to control herbivory and the sites will be monitored using the FCS Stocking Density Assessment protocol.
Productive Broadleaf Woodland (See Appendix X for detailed species prescriptions)	3000 – 6000 stems per hectare 60% area broadleaf species 10% area managed open space 30% area native conifer	Primarily comprising broadleaf species in a silvicultural mixture appropriate to site soils and climate. The aim of this management type is to produce hardwood by clearfelling for roundwood and biomass markets including local firewood sales. The conifer element will generally be concentrated where it will offer biodiversity gains (for example juniper close to powerline wayleaves) but on suitable sites will also form a productive element. This management type will be the preferred option for PAWS where full restoration is the aim. Open ground will be incorporated around archaeological and recreation sites and as unplantable (for example rocky) ground throughout the coupe. Strenuous effort will be made to control herbivory (additional internal fencing will be considered) and the sites will be monitored using the FCS Stocking Density Assessment protocol.
Productive Biomass Woodland (See Appendix X for detailed species prescriptions)	2000 – 3000 stems per hectare 70% area conifer species 10% area managed open space 20% area broadleaf species	Primarily comprising conifer species in a silvicultural mixture appropriate to site soils and climate. The aim of this management type is to produce softwood by clearfelling for local biomass markets. This management type will be proposed where site characteristics (climate, nutrition or herbivore pressure) constrain production of quality timber, but a productive objective is more appropriate than habitat restoration or native woodland establishment. The broadleaf element will generally be concentrated around archaeological and recreation sites however on sites with limited nutrition an increased broadleaf element will be included as part of the silvicultural mixture to contribute to site improvement (for example 10% downy birch in a sitka/larch mixture. Open ground will be incorporated around archaeological and recreation sites and as unplantable (for example rocky) ground throughout the coupe. Strenuous effort will be made to control herbivory and the sites will be monitored using local assessment criteria.
Native Woodland (See Appendix XI for detailed species prescriptions)	800 – 1600 stems per hectare 60% area native tree species 20% area managed open space 20% area native shrub species	Where this management type is proposed native tree and shrub species will be established at lower density mosaics reflecting the appropriate NVC woodland type for the local soils and climate as detailed in Appendix 11 – Native Habitat Prescriptions. Primarily established with the aim of increasing biodiversity, enhancing recreation and education opportunities and potentially producing low quality timber on long rotations (EG for firewood markets) this woodland will be eventually create a woodland stand structure that contains a range of different age classes, both mature and veteran trees with deadwood and some permanent open areas at the margins and internally. A light level of grazing by herbivores sufficient to allow regeneration of a characteristic range of trees and shrubs and a well developed field layer will be tolerated although deer control will be sufficient to allow establishment of transplants and eventually progression to regeneration. Although non-native tree species will generally be absent, where they are considered particularly beneficial to priority species (eg *Larix spp* for woodland grouse or *Picea abies* for red squirrels) they will be tolerated at low levels (less than 15% of species by area). Where the aim is to develop peripheral type woodland such as bog or treeline woodland the stocked area will reduce to 20% and the open space will be 80%, with trees planted at 3000 stems per hectare.
Riparian Woodland (See Appendix XI for detailed species prescriptions)	500 - 1600 stems per hectare 60% area native species 40% open space	The aim of this woodland type is to provide a significant buffer between productive forestry and watercourses and waterbodies that will increase biodiversity and enhance riparian and aquatic habitats. The species that are planted in riparian zones will be selected to match the NVC community for the appropriate soils type and detail of the proposed habitat prescriptions is contained in Appendix 6. Native tree and shrub species will be established in clusters of high density plantings appropriate to site type and framing other significant habitat (eg water vole grassland). A light level of grazing by herbivores sufficient to allow regeneration of a characteristic range of trees and shrubs and a well developed field layer will be tolerated although deer control will be sufficient to allow establishment of transplants and eventually progression to regeneration. The long term aim is that this habitat type will develop to form a permanent network of 'natural reserve' habitat so the fluctuation of levels of open space and woodland will be tolerated

		although prolific conifer regeneration that will compromise overall aims will be removed. New riparian woodland will contain a significant element of aspen (*Populus tremula*) of local provenance.
Low Impact Silvicultural Systems	Dependent on the individual system chosen and the seed sources available	LISS is proposed as a prescription where climate is suitable and where it will achieve specific aims – for example addressing water or soil quality/stability issues, enhancing landscape value and/or contributing to biodiversity enhancement. As forests move through the intial thinning regimes a decision will be taken as to which LISS is most appropriate for the site and the management aims. Most commonly shelterwood systems will be practised, avoiding clearfelling areas larger than 2 heactares. Full management prescriptions are contained in the coupe workplan for each LISS area.
Low Impact Silvicultural Systems – Riparian	Dependent on the individual system chosen and the seed sources available	Where significant watercourses have been identified within LISS coupes, a riparian buffer of a minimum of 30 metres either side of the watercourse will be designated as 'Riparian LISS'. Within these coupes thinning will be heavier (up to 150% of marginal thinning intensity) to remove conifer cover over a shorter period. In addition, where no broadleaf seed source exists some supplementary planting of appropriate broadleaf species will be undertaken in small groups of less than 0.1 Ha to establish future seed sources.
Open Land		Land is maintained as open habitat for biodiversity gain where specific species or habitat types will benefit (eg bog restoration) or where another land management objective exists (eg agriculture – crofting tenure). Open land will also be specifically prescribed where large scale heritage sites, not able to be accommodated in the standard open space of other habitat types needs protected. Open space will form a key element of native and riparian woodland expansion. Open land as defined in this LMP will comprise a maximum of 20% broadleaf woodland and 10% conifer woodland, primarily associated with improving riparian habitats.
Natural Reserve	Not applicable	A natural reserve is predominantly wooded and permanently identified and is sited in a location where it will be of particularly high biodiversity benefit (for example riparian woodland). All NRs will be managed by minimum intervention unless alternative management has higher conservation or biodiversity value. Any management operations proposed will solely be to protect the integrity of the habitat (for example removal of invasive non-native regeneration). The function of NRs is to provide continuity of habitat to allow sedentary species to establish and thrive. They provide reservoirs of permanent habitat from which more mobile species can expand into other areas of woodland. The two types of NR proposed will be based on semi-natural woodland origin and on plantation woodland origin. It is intended that most riparian woodland will eventually be adopted as natural reserve although with the management required to establish the appropriate species this cannot yet be the case.
Long Term Retention	Not applicable	An LTR is a tree or stand of trees retained for environmental benefit significantly beyond the age or size generally adopted by North Highland Forest District. LTR's are proposed because the trees (not the land they occupy) are of significant landscape or biodiversity benefit. An LTR will be proposed where it is desirable to retain the existing stand beyond normal economic maturity for benefits noted, but there is no imperitive to retain permanent woodland cover once the existing stand has fulfilled its objective. In most cases, when selected, LTRs will comprise a stand of stable standing trees however there may be cases where it is desirable to retain large patches of windblow to increase structural diversity and deadwood volume. This latter type of LTR, if present, will be sited where landscape is a low or insignificant priority.

NB:

- All procurement of planting material will adhere to the current guidance (FCS, 2007) on the sourcing of forest reproductive materials.
- All operations will adhere to the Controlled Activities Regulations 2005 General Binding Rules with respect to appropriate buffer strips between restock areas and water bodies.
- It is anticipated that initial applications of potassium, phosphate and nitrogen may be required to establish productive conifer crops. Any requirement for detailed remedial fertiliser programmes will be decided following foliar analysis. Heather control and silvicultural mixtures will be used as a first alternative to fertiliser application. Any initial or remedial fertiliser programmes will adhere to current industry best practice and follow FC Guidelines on water catchment protection. Restocking will be carried out with the principles of pesticide and fertiliser reduction foremost.
- Throughout the red squirrel stronghold areas Norway spruce will be included where silviculturally appropriate and large seeded broadleaf species will be limited.

Appendix VII: Tolerance Table

	Adjustment to felling coupe boundaries	Timing of restocking	Change to species	Windthrow response	Adjustment to road lines
FC Approval not normally required (record and notify FC)	<10% of coupe size. On A 82 coupes up to 1 Ha or 10%.	Up to 7 planting seasons after felling (allowing fallow periods for hylobius).	Change within species group E.g. Scots pine to birch, Non-native conifers e.g Sitka spruce to Douglas fir, Non-native to native species (allowing for changes to facilitate Ancient Woodland policy).	**Low sensitivity area** Where windthrow represents more than 60% of the crop the area including standing trees may be felled plus up to 5Ha beyond in order to seek a windfirm edge.	**Low sensitivity area** Creation of turning points/ loading bays. Deviation of <100m either side of the predicted centre line of the road/ track. **High sensitivity area** Deviation <75m in either direction from centre of road/track.
Approval by exchange of letters and map	10-15% of coupe size. On A82 Coupes 1-5 Ha.	7 years +	Change of coupe objective that is likely to be consistent with current policy (e.g. from productive to open, open to native species).	**Low sensitivity area** As above to include 5-10 Ha of standing crop to seek a windfirm edge. Areas where windthrow represents <60%. **High sensitivity area** Areas where windthrow represents <60%.	**Low sensitivity area** Deviation of 100-150m in either direction from centre of road/track. **High sensitivity area** Deviation of 75-100m in either direction from centre of road/track.
Approval by formal plan amendment	>15% of coupe size. On A82 coupes over 5 Ha.		Major change of objective likely to be contrary to policy, E.g. native to non-native species, open to non-native,	**Low sensitivity area** As above. Windblown area + an area>10 Ha to find a windfirm edge. **High sensitivity area** Felling of standing trees beyond the area of windblow.	Deviations exceeding the above.

The consultation tolerances contained within this table are agreed with Highland Conservancy complying with OGB36 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 VIII: Coupe Summary for First Two Phases (2014 -2024)

Coupe Number & Grid Reference	Area to Fell (Ha)	Predicted Volume (m3OB)	Proposed Restock Year	Area to Restock Within Plan Period (gross)	Comments
Coupe 1 Restock - NH67018656	-	-	2015	8.9	Currently fallow – restock as riparian woodland
Coupe 2 Restock - NH66748636	-	-	2015	2.9	Currently fallow – restock as native woodland
Coupe 3 Restock - NH67247914	-	-	2016	26.4	Currently fallow – restock as productive conifer
				10.0	Currently fallow – restock as riparian woodland
Coupe 4 Restock - NH66877765	-	-	2017	14.6	Currently fallow – restock as native woodland
Coupe 5 Restock - NH67427770	-	-	2017	9.7	Currently fallow – restock as native woodland
Coupe 6 Restock - NH66967610	-	-	2017	20.0	Currently fallow – restock as native woodland
Coupe 7 Restock - NH67727657	-	-	2017	27.0	Currently fallow – restock as productive conifer
Coupe 8 Restock - NH71818127	-	-	2015	13.0	Currently fallow – restock as productive conifer
Coupe 9 Restock - NH71888136	-	-	2015	4.5	Currently fallow – restock as native woodland
Coupe 10 Restock -NH73428100	-	-	2015	10.0	Currently fallow – restock as productive conifer
Coupe 11 New - NH73708276	-	-	2014	7.1	New Planting – treeline woodland creation (native)
Coupe 12 New - NH72858117	-	-	2014	41.0	New Planting – treeline woodland creation (native)
Coupe 13 New - NH73358208	-	-	2014	12.0	New Planting – treeline woodland creation (native)
Coupe 14 Restock -NH74398250	-	-	2015	11.0	Currently fallow – restock as productive conifer
Coupe 15 Restock -NH74578241	-	-	2015	2.5	Currently fallow – restock as native woodland
Coupe 16 Restock -NH74608351	-	-	2015	8.5	Currently fallow – restock as native woodland
Coupe 1 Fell - NH63948683	36.0	7398	2020	23.0	Productive woodland
Coupe 2 Fell - NH63398626			2020	13.0	Native and riparian woodland
Coupe 3 Fell - NH73298387	20.0	7403	2020	18.0	Native woodland
			-	2.0	Wayleave
Coupe 4 Fell - NH73638237	25.0	6918	2020	25.0	Productive conifer woodland
Coupe 5 Fell - NH67437975	89.0	18460	2020	78.0	Productive conifer woodland
			2020	6.5	Native woodland
			-	4.5	Open land

Coupe Number & Grid Reference	Area to Fell (Ha)	Predicted Volume (m3OB)	Proposed Restock Year	Area to Restock Within Plan Period (gross)	Comments
Coupe 6 Fell - NH74368129	56.8	9806	2020	54.0	Productive conifer woodland
			2020	2.8	Native woodland
Coupe 7 Fell - NH72147967	21.0	3343	2020	13.0	Productive conifer woodland
			2020	8.0	Riparian woodland
Coupe 8 Fell - NH73217831	25.0	5181	2020	22.6	Productive conifer woodland
			2020	2.4	Riparian woodland
Coupe 9 Fell - NH66077702	45.0	5693	2020	43.0	Productive conifer woodland
			2020	2.0	Riparian woodland
Coupe 10 Fell - NH67907592	45.0	7515	2020	45.0	Productive conifer woodland
Coupe 11 Fell - NH68537652	20.0	2775	2020	14.0	Productive conifer woodland
				6.0	Native woodland
Coupe 12 Fell - NH65707212	15.0	5226	2020	15.9	Productive conifer woodland
			-	0.8	Open Land
Coupe 13 Fell - NH71717511	2.8	724	2020	2.8	Riparian woodland
Coupe 14 Fell - NH72857456	26.0	7231	2020	17.0	Productive conifer woodland
			2020	9.0	Riparian woodland
Coupe 15 Fell - NH75117655	11.0	3210	2020	8.7	Productive conifer woodland
			2020	1.3	Riparian woodland
			-	1.0	Open Land
Coupe 23 Fell - NH76277933	19.0	5893	2020	19.0	Native Woodland
RED COUPE SUMMARY	**456.6**	**96776**	**-**	**679.1**	
Coupe 16 Fell - NH65507167	13.0	5239	-	-	Fallow – to restock outwith plan period
Coupe 17 Fell - NH70147810	53.0	5541	-	-	Fallow – to restock outwith plan period
Coupe 18 Fell - NH66668033	11.0	2766	-	-	Fallow – to restock outwith plan period
Coupe 19 Fell - NH62438672	19.0	6471	-	-	Fallow – to restock outwith plan period
Coupe 20 Fell - NH63638678	8.0	3866	-	-	Fallow – to restock outwith plan period
Coupe 21 Fell - NH66878630	15.0	4732	-	-	Fallow – to restock outwith plan period
Coupe 22 Fell - NH68168648	5.0	1647	-	-	Fallow – to restock outwith plan period
Coupe 24 Fell - NH76937683	4.0	1245	-	-	Fallow – to restock outwith plan period
ORANGE COUPE SUMMARY	**128.0**	**31507**	**-**	**-**	
FULL SUMMARY	**584**	**128283**		**679.1**	

Appendix IX: Archaeological Record

Designation	Name	Feature Description	Site Description
Scheduled Monument	EDDERTON HILL	LONG CAIRN; CHAMBERED LONG CAIRN	NH78SW 14 7348 8340. At NH 7348 8340 is a long cairn oriented nearly E-W and measuring 61.0m long by 14.0m broad across the straight E end, narrowing to 7.0m near the centre and c10.0m broad at the W end.
Scheduled Monument	RED BURN, CAIRN	CHAMBERED CAIRN	NH78SW 5 7278 8341. (NH 7278 8341) Cairn (NR) Stone Cist containing an urn found AD 1824. OS 6 map
Scheduled Monument	CARN A' CHAIT	CAIRN; BOUNDARY CAIRN; BROCH	NH78SW 7 7168 8049. (NH 7168 8049) Carn a' Chait (NR) Supposed site of Pictish Tower (NR) OS 6 map
Scheduled Monument	CARN LIATH	LONG CAIRN; BUILDING; CHAMBERED LONG CAIRN	NH77NW 10 7298 7980. (NH 7298 7980) Carn Liath (NAT) OS 6 map
Scheduled Monument	GLEN OF SCOTSBURN	FIELD SYSTEM; HUT CIRCLE	NH77NW 16 731 786. A well defined prehistoric settlement and field system, on gently sloping SE facing moorland, recently ploughed for afforestation. Reported by Mrs J Durham. Hut Circle 'A' (NH 7311 7868) - 'Scooped' house platform
Scheduled Monument	GLEN OF SCOTSBURN	ENCLOSURE	NH77NW 17 728 784. A group of three probably prehistoric enclosures lie just to the south of the new forest road, in unploughed land. Located by reporter. Enclosure 'A' (NH 7281 7846) 'Scooped' circular enclosure
Scheduled Monument	UNKNOWN & SUBSITE OF: GLEN OF SCOTSBURN		Ancient Monument (S)
Scheduled Monument	SCOTSBURN WOOD	CAIRN; CHAMBERED CAIRN	NH77NW 5 centred 726 766. A: (NH 7304 7644) Cairn (NR)B: (NH 7300 7649) Cairn (NR)C: (NH 7282 7673) Cairn (NR)D: (NH 7260 7687) Cairn (NR)E: (NH 7218 7679) Cairn (NR)F: (NH 7220 7669) Site of Cairn (NR) OS 6 map
Scheduled Monument	SCOTSBURN WOOD EAST CAIRN & SCOTSBURN WOOD CAIRN 1 & SUBSITE OF: SCOTSBURN WOOD	CAIRN; CHAMBERED CAIRN	GR corrected to above. On 1st ed OS as cairn - HAW 12/2004NH77NW 5 726 766. A: (NH 7304 7644) Cairn (NR), B: (NH 7300 7649) Cairn (NR), C: (NH 7282 7673) Cairn (NR), D: (NH 7260 7687) Cairn (NR), E: (NH 7218 7679) Cairn (NR) and F: (NH 7220 7669) Si
Scheduled Monument	SCOTSBURN WOOD CAIRN 2 & SCOTSBURN WOOD EAST CAIRN & SUBSITE OF: SCOTSBURN WOOD	CHAMBERED CAIRN; CAIRN	NH77NW 5 726 766. A: (NH 7304 7644) Cairn (NR), B: (NH 7300 7649) Cairn (NR), C: (NH 7282 7673) Cairn (NR), D: (NH 7260 7687) Cairn (NR), E: (NH 7218 7679) Cairn (NR) and F: (NH 7220 7669) Site of Cairn (NR) OS 6 map

Scheduled Monument	SCOTSBURN WOOD EAST CAIRN & SUBSITE OF: SCOTSBURN WOOD	CAIRN	GR corrected to above. On 1st ed OS as cairn - HAW 12/2004NH77NW 5 726 766. A: (NH 7304 7644) Cairn (NR), B: (NH 7300 7649) Cairn (NR), C: (NH 7282 7673) Cairn (NR), D: (NH 7260 7687) Cairn (NR), E: (NH 7218 7679) Cairn (NR) and F: (NH 7220 7669)
Scheduled Monument	SCOTSBURN WOOD EAST CAIRN & SUBSITE OF: SCOTSBURN WOOD	CHAMBERED CAIRN	GR corrected to above. On 1st ed OS as cairn - HAW 12/2004NH77NW 5 726 766. A: (NH 7304 7644) Cairn (NR), B: (NH 7300 7649) Cairn (NR), C: (NH 7282 7673) Cairn (NR), D: (NH 7260 7687) Cairn (NR), E: (NH 7218 7679) Cairn (NR) and F: (NH 7220 7669)
Scheduled Monument	SCOTSBURN WOOD WEST CAIRN & SCOTSBURN WOOD EAST CAIRN & SUBSITE OF: SCOTSBURN WOOD	CHAMBERED CAIRN	NH77NW 5 726 766. A: (NH 7304 7644) Cairn (NR), B: (NH 7300 7649) Cairn (NR), C: (NH 7282 7673) Cairn (NR), D: (NH 7260 7687) Cairn (NR), E: (NH 7218 7679) Cairn (NR) and F: (NH 7220 7669) Site of Cairn (NR) OS 6 map
Scheduled Monument	SCOTSBURN WOOD EAST CAIRN & SUBSITE OF: SCOTSBURN WOOD	CAIRN	GR corrected to above. On 1st ed OS as cairn - HAW 12/2004NH77NW 5 726 766. A: (NH 7304 7644) Cairn (NR), B: (NH 7300 7649) Cairn (NR), C: (NH 7282 7673) Cairn (NR), D: (NH 7260 7687) Cairn (NR), E: (NH 7218 7679) Cairn (NR) and F: (NH 7220 7669)
Scheduled Monument	SCOTSBURN WOOD CAIRN 4 & SUBSITE OF: SCOTSBURN WOOD	CAIRN	NH77NW 5 726 766. A: (NH 7304 7644) Cairn (NR), B: (NH 7300 7649) Cairn (NR), C: (NH 7282 7673) Cairn (NR), D: (NH 7260 7687) Cairn (NR), E: (NH 7218 7679) Cairn (NR) and F: (NH 7220 7669) Site of Cairn (NR) OS 6 map
Scheduled Monument	SCOTSBURN WOOD CAIRN 3 & SUBSITE OF: SCOTSBURN WOOD	CHAMBERED CAIRN	Marked on 1st ed OS as cairn. GR corrected to above - HAW 12/2004NH77NW 5 726 766. A: (NH 7304 7644) Cairn (NR)
Scheduled Monument	CARN NA CROICHE	CHAMBERED CAIRN	NH67SE 11 6562 7221. (NH 6562 7221) Carn na Croiche (NR) (Remains of) OS 6 map
Scheduled Monument	WESTER LAMINGTON	LONG CAIRN; CHAMBERED LONG CAIRN	NH77NW 2 7473 7800. (NH 7474 7799) Cairn (NR) OS 6 map
Scheduled Monument	UNKNOWN & SUBSITE OF: WESTER LAMINGTON		Ancient Monument (S)
Scheduled Monument	CREAG AN FHITHICH	FORT; DITCH; DYKE	NH68NE 87 684 867(Location cited as NH 684 867). Substantial denuded drystone dyke with silted V-shaped ditch to SW. Located at c.170m on knoll on E ridge of Struie Hill above Raven's Crag. Dyke cuts across ridge and has short returns at both ends.
Scheduled Monument	PROVOST'S WELL & SUBSITE OF: GLEN OF SCOTSBURN	CLEARANCE CAIRN; FIELD SYSTEM; GROUSE BUTT; HUT CIRCLE	A well defined prehistoric settlement and field system, on gently sloping SE facing moorland, recently ploughed for afforestation. Reported by Mrs J Durham. Hut Circle 'A' (NH 7311 7868) - 'Scooped' house platform, internal diameter of 12.5m NE-SW

Undesignated	CAMBUSCURRIE WOOD	KERB CAIRN	NH78SW 15 7420 8324. At NH 7420 8324 is a cairn about 13.0m in diameter, slightly truncated in the S by a forestry road, and obscured by vegetation. Several large blocks of a kerb, some displaced, survive around the N half
Undesignated	GLEN OF SCOTSBURN, ST DAVID'S WELL	WELL	NH77NW 18 7351 7884. 'A well with a copious flow of fresh water well adapted for domestic use, the water of which enters a cistern and from thence it is conveyed underground to the burgh of Tain, it being the chief supply for the town'
Undesignated	SPRINGS	ENCLOSURE; FIELD SYSTEM; FARMSTEAD	NH77NW 21 726 783 Two 19th-20th century buildings with associated fields and enclosures. Information from D W Ross to RCAHMS, 11 November 1988.
Undesignated	NEWMORE WOOD	CLEARANCE CAIRN; CAIRN	NH67SE 31 682 736. NH 682 736. Cairns, Newmore Wood: In 1976 three cairns measuring about 4m in diameter were recorded in this area, which is now buried in a forestry plantation. J E Kirby 1976; RCAHMS 1979. The alleged cairns were not positivel
Undesignated	STRATH RORY	FARMSTEAD; HEAD DYKE	NH67NE 17 678 775 Building (remains). Only one mortared building foundation remains of this 19th-20th century group of buildings, enclosures and dykes.Information from D W Ross to RCAHMS, 12 December 1988.679 772: (previously NH67NE 18):
Undesignated	STRATH RORY	BOUNDARY DYKE; ENCLOSURE; FARMSTEAD	NH67NE 17 678 775 Building (remains). Only one mortared building foundation remains of this 19th-20th century group of buildings, enclosures and dykes.Information from D W Ross to RCAHMS, 12 December 1988.679 772: (previously NH67NE 18):
Undesignated	STRATH RORY	FARMSTEAD	NH67NE 20 687 770 Farmstead. Two longhouses each 14.5m long by 3.0m wide internally with a single subdivision. One is set into the slope with a porch at its west end. Also a sub rectangular building foundation and other small enclosures and dyke
Undesignated	SPRINGS	FARMSTEAD	NH77NW 21 726 783 Two 19th-20th century buildings with associated fields and enclosures. Information from D W Ross to RCAHMS, 11 November 1988.
Undesignated	UNKNOWN & HUT CIRCLE & SUBSITE OF: ACHNACLOICH	SITE	Ancient Monument (U)
Undesignated	NEWMORE WOOD	CUP AND RING MARKED STONE	NH67SE 30 6832 7366. NH 683 737. In 1976, a boulder bearing cup-and-ring markings was recorded here, in Newmore Wood.
Undesignated	NEWMORE WOOD	UNIDENTIFIED FLINT (FLINT); FINDSPOT	NH67SE 32 680 737. NH 680 737. Two flint flakes, found in Newmore Wood, are in the possession of the finder, J E Kirby. DES 1976.
Undesignated	LUACHARMHOR	BUILDING	NH68SE 30 674 803 Two deserted cottages of clay-mortar construction situated at NH 6743 8036 and NH 6745 8038, immediately E of a stream; one of them has been re-pointed with lime mortar. RCAHMS 1979, visited September 1978.

Undesignated	MEALL A' BHREACAINN	SHIELING HUT	NH68SW 1 64 81. Approx NH 6481: Shielings, Meall a' Bhreacainn: Numerous shielings are reported on the E side of this hill. One example visited measured 12m from NW to SE by 4m transversely. RCAHMS 1979, visited 1978.
Undesignated	STRATH RORY	FARMSTEAD; FARM	NH67NE 12 6976 7645. A single four-roomed cottage of dry-stone construction with associated enclosure. RCAHMS 1979, visited November 1977Late medieval or early modern depopulation site, comprising a single unroofed cottage with associated enclosure
Undesignated	STRATHRORY, BRIDGE	ROAD BRIDGE; BRIDGE	NH67NE 14 6603 7756A rubble bridge with two segmental arches of unequal size and triangular cutwaters.J R Hume 1977From examination of photographs it is likely that the N arch has been rebuilt, which would account for the discrepancy in size.
Undesignated	LAIRGS OF TAIN	TOWNSHIP; FARMSTEAD	NH77NW 28 centred on 728 797 NH 7280 7971: The remains of this farm are largely hidden in dense vegetation. Some of the buildings are of mortared-stone construction. RCAHMS 1979, visited November 1977.
Undesignated	FARMSTEAD & CROFT - CAUSEWAYEND & SUBSITE OF: LAIRGS OF TAIN	SITE	
Undesignated	KINRIVE	CAIRN; FIELD SYSTEM; HUT CIRCLE	NH77NW 3 centred NH 705 759. (A: NH 7020 7567; B: NH 7026 7567; C: NH 7043 7588; D: NH 7043 7591; E: NH 7052 7595; K: NH 7081 7597) Hut Circle(s) (NR) OS 25 map
Undesignated	HUT CIRCLE, N OF KINRIVE & SUBSITE OF: KINRIVE	HUT CIRCLE	Hut circle marked on modern OS - HAW 5/2004
Undesignated	UNKNOWN & HUT CIRCLE & SUBSITE OF: KINRIVE	SITE	Ancient Monument (U)
Undesignated	UNKNOWN & HUT CIRCLE & SUBSITE OF: KINRIVE	SITE	Ancient Monument (U)
Undesignated	KINRIVE & SUBSITE OF: KINRIVE	FIELD SYSTEM; LYNCHET; CLEARANCE CAIRN; HUT CIRCLE	NH77NW 3 Centred on NH 705 759. (A: NH 7020 7567; B: NH 7026 7567; C: NH 7043 7588; D: NH 7043 7591; E: NH 7052 7595; K: NH 7081 7597) Hut Circle(s) (NR) OS 25 map
Undesignated	STITTENHAM	MILLSTONE; QUARRY; STONE QUARRY	NH67SE 36 6554 7423 Two incomplete millstones, part carved from a rock outcrop. Visited by OS (AA) 12 May 1975.
Undesignated	NEWMORE WOOD	CAIRN; BURIAL CAIRN	NH67SE 6 6806 7378. (NH 6806 7378) Cairn (NR) OS 6 map

Undesignated	ACHNACLOICH	CAIRN	NH67SE 8 66 73. A cairn near Achnacloich measures 130 yards in circumference and is surrounded by a number of tunnels. J Noble 1909. No trace of a cairn was found in the vicinity of Achnacloich. Noble may be referring to NH67SE 6.
Undesignated	ARDVANNIE	QUERN; FINDSPOT	NH68NE 44 c. 68 87
Undesignated	STRATH RORY	BUILDING; STOCK ENCLOSURE	NH67NE 15 671 774 Enclosures. The remains of 19th-20th century stock enclosures, and a building foundation, partially destroyed by a forest road. Information from D W Ross to RCAHMS 12 December 1988.
Undesignated	STRATH RORY	BUILDING; STOCK ENCLOSURE	NH67NE 15 671 774 Enclosures. The remains of 19th-20th century stock enclosures, and a building foundation, partially destroyed by a forest road. Information from D W Ross to RCAHMS 12 December 1988.
Undesignated	STRATH RORY	PLATFORM	NH67NE 16 678 777 Platform. On top of a prominent terrace is an oval platform measuring 15m by 10m. It has been ploughed and planted for forestry, but possible traces of walling are visible in plough upcast on the edge of the platform to the SW
Undesignated	CNOC FAIR AN DUIN	NATURAL FEATURE; DUN; TOWER	NH67NE 4 centred 662 754. (Centred NH 662 754) Cnoc Fair' an Duin (NAT) OS 6 map
Undesignated	STRATH RORY	FARMSTEAD; ENCLOSURE; LAZY BEDS; CORN DRYING KILN	NH67NE 9 675 772. At NH 674 771 is a near-circular enclosure. 11.0m in diameter having the appearance of a hut circle, but contemporary with a few depopulated foundations with kiln and lazy beds close by. Visited by OS 18 July 1975 At NH 675 772
Undesignated	ACHNACLOICH	HUT CIRCLE	NH67SE 26 6627 7431 and 6628 7439. At NH 6627 7429 and NH 6628 7437 on an afforested S-facing slope are two circular stone-walled huts (A and B respectively). "A" is mutilated and measures about 9.0m in diameter
Undesignated	GLEN OF SCOTSBURN, ST GEORGE'S WELL	WELL	NH77NW 19 7344 7878. 'An ordinary spring with a copious flow of water well adapted for domestic use and is chiefly used as such it being one of the principal supplies for the burgh (of Tain). It is not regarded as a holy well.' Name Book 1874.
Undesignated	BADNAGUIN	BUILDING; BUILDING FOOTINGS	NH77NW 20 721 770 An 18th-19th century four compartment longhouse. Information from D W Ross to RCAHMS, 11 November 1988.

Undesignated	GLEN OF SCOTSBURN	FARMSTEAD; FIELD SYSTEM; ENCLOSURE	NH77NW 22 717 778 Late medieval rectangular building foundation with stock enclosure. Several small consumption dykes. Information from D W Ross to RCAHMS 11 November 1988.A farmstead comprising one unroofed building, one enclosure and a field-sy
Undesignated	GLEN OF SCOTSBURN	FARMSTEAD	NH77NW 23 714 777 (1) Two compartment 19th century longhouse with annex; associated rectangular foundation with stock enclosures and fields. (2) L-shaped turf-covered wall foundation truncated by modern track. 19th century bothy overlies NE corner
Undesignated	LAIRGS OF TAIN	BUILDING	NH77NW 27 7170 7986. A single rectangular cottage of dry-stone construction with a large enclosure on the NE. RCAHMS 1979, visited November 1977.
Undesignated	EAST LONE VINE	KNOCKING STONE; STONE	NH77SW 20 727 740. Listed; no details given. D W Ross 1990.
Undesignated	LOCH SHEILADH	BOATHOUSE	NH67NE 23 6750 7796A boat house is marked on the current edition of the OS 1:10,000 map (1985). This has been a desk assessment area.J Wordsworth, SSSIs, Scottish Natural Heritage, 1993
Undesignated	ROSEHILL	FARMSTEAD	NH78SE 52 7525 8049A farmstead comprising an unroofed building with two attached enclosures is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli) and on the current edition of the OS 1:10000 map (1981)
Undesignated	TARLOGIE WOOD	FARMSTEAD	NH78SW 28 749 819A farmstead comprising an unroofed building with an attached enclosure situated in an area of cultivation in coniferous woodland is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli)
Undesignated	TARLOGIE WOOD	FARMSTEAD	NH78SW 29 747 818A farmstead comprising an unroofed building with an attached enclosure is depicted in an area of coniferous woodland on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli)
Undesignated	HILL OF TAIN	FARMSTEAD	NH78SW 30 7414 8171A farmstead comprising an unroofed building, what may be another unroofed building marked by a pecked line and an enclosure is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli).
Undesignated	HILL OF TAIN	FARMSTEAD	NH78SW 31 7338 8141A farmstead comprising an unroofed long building of three compartments and an outshot and an unroofed structure is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli).
Undesignated	EDDERTON HILL	FARMSTEAD	NH78SW 33 716 827What may be a farmstead comprising an unroofed long building is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli), but it is not shown on the current edition of the OS 1:10000 map (1992)

Undesignated	RHANICH	FARMSTEAD	NH78SW 35 7125 8110A farmstead comprising one roofed building, one partially roofed building, two unroofed buildings, each with an attached enclosure, and a length of field wall is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli).
Undesignated	RHANICH	ENCLOSURE	NH78SW 36 714 809An enclosure is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli), but it is not shown on the current edition of the OS 1:10000 map (1992).Information from RCAHMS (SAH) 29 March 1996
Undesignated	STRATHRORY RIVER	BUILDING; STRUCTURE	NH77NW 33 705 764One unroofed building of two compartments and an unroofed structure are depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1880, sheet liv), but they are not shown on the current edition of the OS 1:10000
Undesignated	DOUNIE WOOD	HUT CIRCLE	NH68NE 85 691 869NH 691 869 Two hut circle sites damaged by forestry planting on lower N-facing slopes of Dounie Wood plantation. Reports of two further hut circles in vicinity (not visited).Tain Archaeological Group 1995.
Undesignated	NEWMORE WOOD	FARMSTEAD	NH67SE 38 681 738A farmstead comprising one roofed, two unroofed buildings and two enclosures is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet liii), but it is not shown on the current edition of the OS 1:10
Undesignated	NEWMORE WOOD	FARMSTEAD	NH67SE 39 684 741A farmstead comprising one roofed, one unroofed building and an enclosure is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet liii), but it is not shown on the current edition of the OS 1:10
Undesignated	CAMBUSCURRIE WOOD	FARMSTEAD	NH78SW 51 734 837A farmstead comprising an unroofed building within an incomplete enclosure is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli), but it is not shown on the current edition of the OS 1:100
Undesignated	CAMBUSCURRIE WOOD	FARMSTEAD	NH78SW 52 7347 8391A farmstead comprising an unroofed building with an attached enclosure is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli) and on the current edition of the OS 1:10000 map (1992)
Undesignated	CAMBUSCURRIE WOOD	BUILDING	NH78SW 53 737 838An unroofed L-shaped building is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli), but it is not shown on the current edition of the OS 1:10000 map (1992).Information from RCAHMS (SAH)
Undesignated	RHANICH	FARMSTEAD	NH78SW 27 719 802A farmstead comprising two roofed and two unroofed buildings is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli). One unroofed building is shown on the current edition of the OS 1:10000
Undesignated	ARDVANNIE	SADDLE QUERN; FINDSPOT; SITE	NH68NE 89 NH 690 870Saddle quern (NMS) NH 690 870 Saddle quern fragment (H 0.15m; W 0.5m; B 0.15m) found in a field at Edderton. The area surrounding the findspot has the remains of several cairns, and a trough quern has previously been found

Undesignated	STRATHRORY GLEN	DYKE	NH67NE 25 690 767NH 690 767 An archaeological desk-based assessment, walk-over survey and two watching briefs were carried out between June and October 2006 to inform the development of a walking trail through Strathrory, Ross-shire
Undesignated	BADACHONACHER MOSS	BUILDING	NH77SW 26 707 743One roofed and one unroofed building are depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1880, sheet liv), but they are not shown on the current edition of the OS 1:10000 map (1977).Information from RC
Undesignated	CAMBUSCURRIE WOOD	BUILDING; STRUCTURE	NH78SW 54 733 835An unroofed building and an unroofed structure are depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli), but they are not shown on the current edition of the OS 1:10000 map (1992).
Undesignated	RED BURN	FARMSTEAD	NH78SW 48 728 836A farmstead comprising one partially roofed, one unroofed and one roofed building is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli)
Undesignated	RED BURN	FARMSTEAD	NH78SW 49 731 836A farmstead comprising an unroofed L-shaped building with an attached enclosure is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli)
Undesignated	GLEN ALDIE	FARMSTEAD	NH77NE 18 755 794A farmstead comprising one unroofed and two roofed buildings and a length of field wall is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli)
Undesignated	GLEN ALDIE	FARMSTEAD	NH77NW 32 748 791A farmstead comprising one unroofed building and an incomplete enclosure is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli). The enclosure is shown on the current edition of the OS 1:1
Undesignated	GLENUIG	CAIRN	NH67SE 55 6655 7435NH 6655 7435 Two substantial cairns, 5m long by 2m wide by 1m high, are sited within a drystone enclosure. They may only be clearance cairns but are not paralleled by similar features in an area of extensive post-medieval settlement
Undesignated	TAIN	PROJECTILE; FINDSPOT	NH78SE 207 798 831NH 798 831 Exceptional tanged flint projectile point found on the beach at Tain in April 1998 by Margaret Urquhart. Length 77mm; breadth 16mm; thickness 5mm; weight 5g.
Undesignated	INCHINDOWN, ROYAL NAVY FUEL TANKS	OIL STORAGE TANK (20TH CENTURY); SILO	NH67SE 57.00 68832 74492 and 69021 74606NH67SE 57.01 NH 69324 74056 StructureThe Royal Navy underground oil tanks to supply Invergordon are situated upslope from Inchindown farmsteading.
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE & HUT CIRCLE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)

Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	OLD CAIRN, TORR BAN	CAIRN	Old Cairn" marked on 1st ed OS at Tor Ban
Undesignated	STRATH RORY	ENCLOSURE	NH67NE 19 680 773 ?IA Enclosure. The remains of a stone walled enclosure measuring internally 20m NW-SE by 14m, but much obscured and mutilated by forestry ploughing. The 2m wide entrance lies on the NW and here the wall is up to 2.5m wide.
Undesignated	EDDERTON HILL	FARMSTEAD	NH78SW 32 717 828A farmstead comprising an unroofed long building of two compartments and an unroofed structure which is attached to an enclosure is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli)
Undesignated	COAG FARM, STRATHRORY GLEN	FARM	Building number 151: 1 roofed & 2 unroofed buildings with encklosure marked on 1st ed OS - HAW 12/2004
Undesignated	INVERNESS, 15 DOUGLAS ROW	HOUSE	Created automatically by NMRS Register UtilityUser: Admin, Date: Wed 13 Oct 2004
Undesignated	PULPIT ROCK	SITE	
Undesignated	MILL LADE	SITE	
Undesignated	BOUNDARY STONE	SITE	
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	BOUNDARY STONE	SITE	
Undesignated	HUT CIRCLE	SITE	
Undesignated	HOUSE	SITE	
Undesignated	HUT CIRCLE	SITE	
Undesignated	STONE WALL	DYKE	Stone Wall
Undesignated	FARM - CULPLEASANT	SITE	
Undesignated	ARDVANNIE	BUILDING	NH68NE 50 678 874 This deserted cottage stands 100m SSE of Ardvannie House. It measures 8.8m from NNE to SSW by 2.2m transversely within the footings of walls about 0.8m thick. RCAHMS 1979, visited October 1978.
Undesignated	FARMSTEAD, DOUNIE WOOD	FARM	Long roofed E-W building. Small square unroofed structure to S. Freestanding irreguklar rectangular enclosure to N of both on 1st ed OS - HAW 11/2004
Undesignated	SHEEPFOLD, STRATHRORY	SHEEPFOLD	Large rectangular sheepfold, 4 compartments marked on 1st ed OS - HAW 12/2004
Undesignated	CAIRN ON TRACK, E OF SCOTSBURN	CAIRN	Estimated GR. On the N side of the track a large cairn seems to overlie the northern boundary of the track, partly in the wood - see photo - HAW 03/2005
Undesignated	QUARRY, NEILSTON	QUARRY	This quarry was recorded by Janet Fyfe in 1998 and forms part of a wider survey covering the Black Isle" area.Seen on: Cromarty Estate Map

Undesignated	TARLOGIE CAIRN	CHAMBERED CAIRN	Stone setting, apparently the heavily robbed remains of a chambered cairn, located within Tarlogie Wood. Although this was not previously recorded on the SMR or NMRS it has clearly been identified and managed by the Forestry Commission
Undesignated	CHAMBERED CAIRN	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (S)
Undesignated	SITE & HUT CIRCLE	SITE	Ancient Monument (U)
Undesignated	CAMBUSCURRIE WOOD	BUILDING	NH78SW 50 734 836An unroofed building is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1881, sheet xli), but it is not shown on the current edition of the OS 1:10000 map (1992).Information from RCAHMS (SAH)
Undesignated	SITE & HUT CIRCLE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	FARM	SITE	
Undesignated	BUILDING REMAINS	SITE	
Undesignated	CAIRN	SITE	
Undesignated	HUT CIRCLE	SITE	
Undesignated	BUILDING	SITE	
Undesignated	BUILDING	SITE	
Undesignated	STRATH RORY	STOCK ENCLOSURE	No Description
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	CAUSEWAYEND - FARM	SITE	
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	FUARAN AN DRAIGHINN	CLEARANCE CAIRN	NH67NE 21 691 769 Up to eight clearance cairns. The steeply sloping ground to the east has several short stretches of stone 'rickles'. Information from D W Ross to RCAHMS 11 November 1987.
Undesignated	DROVE STANCE	HUT CIRCLE	NH67SE 25 6541 7468. At NH 6541 7468 on the brink of a S slope in a pasture field is a circular stone - walled hut c.10.5m in diameter between the centres of a mutilated wall spread to c.3.0m in the N arc, but destroyed in the S by erosion.
Undesignated	SCOTSBURN	CIST; CREMATION	NH77NW 8 7334 7627 and 7335 7624. Stone Cists found AD 1837 (NAT) OS 25 map
Undesignated	BOUNDARY STONE	SITE	
Undesignated	BOUNDARY STONE	SITE	
Undesignated	BOUNDARY STONE	SITE	
Undesignated	BOUNDARY STONE	SITE	
Undesignated	BOUNDARY STONE	SITE	
Undesignated	BOUNDARY STONE	SITE	

Undesignated	BOUNDARY STONE	SITE	
Undesignated	BOUNDARY STONE	SITE	
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE & BOUNDARY STONE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	BOUNDARY STONE	SITE	
Undesignated	BOUNDARY STONE	SITE	
Undesignated	BOUNDARY STONE	SITE	
Undesignated	BOUNDARY STONE	SITE	
Undesignated	BOUNDARY STONE	SITE	
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Undesignated	BOUNDARY STONE	SITE	
Undesignated	BOUNDARY STONE	SITE	
Undesignated	BOUNDARY STONE	SITE	
Undesignated	EDDERTON POOR HOUSE	SITE	
Undesignated	WELL	SITE	
Undesignated	HUT CIRCLE	SITE	
Undesignated	HUT CIRCLE	SITE	
Undesignated	HUT CIRCLE	SITE	

Undesignated	HUT CIRCLE	SITE	
Undesignated	NAVIGATION POLE	SITE	
Undesignated	HOUSE	SITE	
Undesignated	HOUSE	SITE	
Undesignated	BOUNDARY STONE	SITE	
Undesignated	BOUNDARY STONE	SITE	
Undesignated	CAIRN	SITE	
Undesignated	BUILDING	SITE	
Undesignated	ENCLOSURE	SITE	
Undesignated	SETTLEMENT	SITE	
Undesignated	HUT CIRCLE	SITE	
Undesignated	CAIRN	SITE	
Undesignated	STONE WALL	DYKE	Stone Wall
Undesignated	STONE WALL	DYKE	Stone Wall
Undesignated	SITE	SITE	
Undesignated	SITE	SITE	
Undesignated	CULPLEASANT	BUILDING; ENCLOSURE; DYKE	No Description
Undesignated	KINRIVE WOOD	FARMSTEAD	NH77NW 36 704 756A farmstead comprising an unroofed building with two attached enclosures is depicted on the 1st edition of the OS 6-inch map (Ross-shire and Cromartyshire 1880, sheet liv), but it is not shown on the current edition
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	ROSIE HILL	GRAVE; BOUNDARY BANK; DYKE	No Description
Undesignated	DOGS GRAVE	SITE	
Undesignated	GLEN ALDIE	BUILDING FOOTINGS; CROFT	No Description
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	GLEN ALDIE	BUILDING; DYKE	No Description
Undesignated	LARGE NAMED ROCK	SITE	Ancient Monument (U)

Undesignated	SITE & BUILDING	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (S)
Undesignated	SITE & BUILDING	SITE	Ancient Monument (U)
Undesignated	DOUNIE WOOD	ENCLOSURE	NH68NE 75 671 868An enclosure is depicted on the 1st edition of the OS 6-inch map (Ross-shire 1879-81, sheet xxvii), but it is not shown on the current edition of the OS 1:10000 map (1971).Information from RCAHMS (SAH) 12 March 1996
Undesignated	SCOTSBURN HOUSE, STABLES AND GIGHOUSE	CARRIAGE HOUSE; STABLE	NH77NW 44.01 72004 76288
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	HEATHMOUNT WOOD	BOUNDARY BANK; TRACK	No Description
Undesignated	RIFLE RANGE, TAIN	FIRING RANGE	These targets were used by the Rifle Volunteers. The bridge was built in 1902 by the Rose Street Foundry for easier access to the ranges. J Macrae pers comm.Other target locations :-NH 8090 8375NH 7990 8305Information supplied by Annette Jack, 18.1
Undesignated	OLD SHOOTING RANGE	SITE	Ancient Monument (U)
Undesignated	INCHINDOWN	SITE	Concrete RN fuel tanks, underground tanks tunnelled into hill side. The two entrances are in the forest above the farm at Inchindown. The pipeline can be traced from the tanks to Invergordon. Photos in J A Guy, 20th Century Defences.
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (S)
Undesignated	SITE	SITE	Ancient Monument (S)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE	SITE	Ancient Monument (S)
Undesignated	SITE	SITE	Ancient Monument (U)
Undesignated	SITE & HUT CIRCLE	SITE	Ancient Monument (U)
Undesignated	SITE & HUT CIRCLE	SITE	Ancient Monument (U)

Appendix X: Productive Forestry Prescriptions

Soil Group	Soil Types Relevant to North Highland FD	Characteristics	Species Prescription for Commercial Restocking
1	Brown Earths	Soils with typically good aeration and drainage throughout the profile and well-incorporated organic matter. These soils range from very rich to poor and usually allow deep rooting. Likely vegetation to be encountered includes broad leaved grasses, (e.g. Yorkshire fog, Bent), bracken, bramble, foxgloves, violets and a diverse range of herbs.	Douglas Fir on Poor (must be without heather) to Rich fertility with Moist to Dry soil moisture. Desirable intimate or group mixture; European Larch, Norway Spruce or Western Red Cedar. Generally in sheltered areas with sufficient rainfall Sitka or Norway Spruce on Poor to Medium fertility with Wet to Fresh soil moisture. Desirable intimate or group mixture; each other or European/Hybrid Larch Scot's Pine in Podzolised areas on Poor to Medium fertility with Moist to Dry soil moisture. Desirable intimate or group mixture; Japanese/Hybrid or European Larch European Larch on Medium to Rich fertility with moist to Moderately Dry soil moisture. Desirable intimate or group mixture; Scot's Pine or Douglas Fir Japanese/Hybrid Larch on Poor to Medium fertility with Very Moist to Fresh moisture. Desirable intimate or group mixture; Scot's Pine Sycamore on Medium to Rich fertility with Moist to Fresh soil moisture. Desirable intimate mixture: Ash† or European Larch Where improved climatic conditions allow: Sessile Oak on Medium to Rich fertility with Moist to Slightly Dry soil moisture. Pedunculate Oak (Local seed source if possible) on Medium to Rich with Very Moist to Fresh soil moisture. Desirable intimate/group or blocky mixtures include; Norway Spruce, European Larch, Western Red Cedar, Silver Birch or Ash Silver Birch on Poor to Medium with Very Moist to Fresh soil moisture. Desirable intimate or group mixture: Oak or Scot's Pine *Ash on Rich fertility with moist to Fresh soil moisture and less acidic sites. Mix in groups with; Sycamore, Oak or Beech
3	Podzols	Develop on unfertile acid soils with high rainfall where nutrients are flushed into the lower horizons of the soil profile. Very poor fertility. 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 Wavy hair, Matt and Purple moor grass. Light bracken and feather mosses may also be present.	Scot's Pine with Moist to Dry soil moisture. Desirable mixture; intimate mixture with Hybrid Larch Sitka Spruce with Wet to Moist soil moisture. Mix with; Lodgepole Pine in wetter areas or Japanese/Hybrid Larch Japanese/Hybrid Larch with Very Moist to Fresh soil moisture Where improved climatic conditions allow: Sessile Oak (not on 3m) with Moist to Fresh soil moisture. Desirable mixture; Hybrid Larch, Scot's Pine or limited Norway Spruce
4	Ironpans	Develop on free draining acid soils with high rainfall. The transfer of aluminium and iron in solution down through the soil profile develops an ironpan that is impervious to water and root penetration. Breaking of the ironpan is desirable, so as to allow drainage of the site and a potential increase in soil rooting volume and nutrient availability. Vegetation and fertility is similar to that of Podzols above	Scot's Pine with Moist to Dry soil moisture. Desirable mixture; Japanese/Hybrid Larch Japanese/Hybrid Larch with Very Moist to Fresh soil moisture. Desirable mixture; Scot's Pine Lodgepole Pine in elevated areas with Wet to Fresh soil moisture Sitka or Norway Spruce (4 & 4b) with Wet to Fresh soil moisture. Desirable intimate or group mixture; Lodgepole Pine in wetter areas or Japanese/Hybrid Larch or Scot's Pine. Sycamore (4b only) with Moist to Fresh soil moisture. Consider intimate mixture with Japanese/Hybrid Larch Cultivation that includes amelioration of the ironpan will be considered.
5	Groundwater Gleys	Dominant vegetation is commonly Tufted hair grass, Willows and herbs. Occurring 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.	These areas are generally presumed to be open or riparian zones. Productive planting will be outwith the 30m buffer zone of native woodland. Where rooting depth is adequate: Sitka or Norway Spruce on Medium to Rich fertility with Very Wet to Moist soil moisture. Consider adding blocks of Downy Birch and Alder Intimate mix of Downy Birch and Common Alder on Poor fertility with Very Wet to Moist soil moisture

6	Peaty Gleys	Very Poor to Rich nutritional availability, these soils are indicated by Purple moor grass, Calluna and Cross-leaved heath, 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.	Sitka Spruce on Poor to Medium fertility with Wet to Fresh moisture. Experience in North Highland suggests this crop will rarely establish as a pure stand without fertiliser input. Intimate mix with Lodgepole Pine in wetter and poorer areas or with Japanese/Hybrid Larch in more Pozolised areas. Consider adding blocks of Downy Birch Downy Birch on Poor to Medium fertility with Very Moist to Fresh soil moisture
7	Surface Water Gleys	Differing from groundwater gleys in that waterlogging is caused not by a high water table, but by lateral surface-water movement through the soil profile developing a seasonally fluctuating water table. Resulting anaerobic conditions will restrict rooting. Indicative vegetation includes Tussock grass and Creeping Buttercup. Again poor to moderate nutritional availability can be expected. Drainage will be required along with micro site cultivation such as mounding.	Sitka or Norway Spruce on Medium fertility with Wet to Fresh soil moisture. Desirable mixture; each other, Japanese/Hybrid Larch or with Lodgepole Pine in wetter poorer areas Where improved climatic conditions allow: Pedunculate Oak on 7b Medium to Rich fertility with Moist to Fresh soil moisture. Desirable group or blocky mixture; Norway Spruce
8	Flushed Basin Bogs	Rushes are prevalent. A shallower peat type, nutrient rich and containing some mineral grains. Peat is black in colour.	Please note that there is a presumption against planting areas of deep peats where reasonable productive growth rates are not achievable due to intact hydrology and/or challenging climate. Forestry Commission Scotland is currently forming a policy for dealing with these soil types. Forest Enterprise Scotland will issue Guidance once a policy is in place. It may be considered that more fertile, flushed peats and areas of deeper peat where hydrology has been ireverisbly compromised will remain suitable for restocking. Where areas of deeper peat are encountered in intimate mosaic with more favourable soils Sitka Spruce (QSS) will be favoured in a mixture with Lodgepole Pine of disease resistant provenance or hybrid larch. On these more nutritionally challenged sites a proportion (up to 20%) of soil improving species such as birch will be considered.
9	Molinia Bogs	Often existing on hillsides where flushing is more pronounced. Moderate nutrition available.	
10	Unflushed Flat or Raised Bogs	Sphagnum Moss 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.	
11	Unflushed Blanket Bogs	Calluna, cotton-grass, deer grass bogs including the hill peats located on upland plateaux and hillsides deeply dissected by burns.	
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.	
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.	Corsican cannot be considered due to the current DNB moratorium on planting therefore Scot's Pine either pure or in intimate, group or blocky mixture with Birch. Downy/Silver Birch depending on climate

NB – These prescriptions must be adopted within the local context set out in the main body of this Forest Design Plan. Climate, (along with soils) must be included as **the** determining factor in final species selection.

- Planting will generally become a mosaic of the species recommended above and will include areas of non-productive open ground and broadleaf riparian zones. Species choide will be dictated by local conditions and agreed after site visits by management staff.
- No commercial forestry type likely to be suitable on sites wetter than SMR "Very Moist" and vegetation indicating SNR <4.5
- Origin for SS is QSS. However where conditions are sub-alpine then ASS is preferred
- Mixed stands mean that each species occupies at least 20% of the canopy. Blocky areas should aim to cover the area that 3-4 mature trees would cover. Mixtures may need management to favour one or more species. Intimate mixtures of broadleaves with Sitka Spruce or Scot's Pine will normally result in the conifer's dominating overtime so planitng in blocks is often the better option.
- † No import of material from out with the protected zone for Chalara
- * Suitable sites in North highland expected to be very limited

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http://www.forestry.gov.uk/fr/INFD-8CVE4D

Appendix XI: 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 Moderatedly 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.
7	Surface Water Gleys	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. Indicative vegetation includes Holcus, Juncus, Nardus and Deschampsia *caespitosa*. Again poor to moderate nutritional availability can be expected. Drainage will be required along with micro site cultivation such as mounding.	NW	W11 Upland oak-birch with bluebell on 7b W18 Scots pine with heather on 7z possibly on margins leading to drier knolls. W7 Alder-ash with yellow pimpernel on 7, 7b and 7z Cool to Warm. Sheltered to Moderatedly exposed. (DAMS <16)
8	Flushed Basin Bogs	Juncus 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 Trichophorum, Calluna, Eriophorum, Molinia 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	Calluna, Eriophorum, Trichophorum 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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Moorland slopes and hills with coniferous woodland

Landscape design focus area:
Dounie Hill is a steep sided prominent landmark feature at transition from rounded moor to coastal kyle. Highly visible from around Kyle, in particular from Dornoch bridge.
Irregular asymmetric shapes important as is transition from large to small scale (at base of slope), integrity of hill top (upper forest margin alignment) and carefully selected skyline breaks.

Landscape design focus area:
Struie Hill, partly located within NSA, a notable landmark on edge of moorland at the transition to the more diverse and complex coastal lowland landscape. Highly visible from major NSA viewpoint on the B9178, and form around the Kyle.
Landscape design to inform future forest management intervention decisions

Landscape design focus area:
Backdrop to NSA. Highly visible northern face of hill appears fragmented and patchy. The scale and shape of open, felled and species areas do not relate to the scale of landform nor the surrounding land uses. Improving, through unifying hill, reducing complexity at top of hill and developing a strong BL network that links the bottom of the hill to top are strategic aims.

Kyle

Kyle of Sutherland NSA

Kyle of Sutherland NSA

Kyle of Sutherland NSA

Kyle of Sutherland NSA

Forest Farming edge

Rounded Hills

Existing geometric zig zag shaped planted edge at top of hill does not relate to landform-highly visible for extended stretches of the B9178. Visual balance between area planted and unplanted appears uncomfortable from main viewpoint on B9178.
The aim, during the next rotation, is to improve the appearance of this edge by relating the forest edge to the underlying topography, making scallops larger and more diverse and altering the forest edge alignment.

Undulating moorland

Rounded Hills

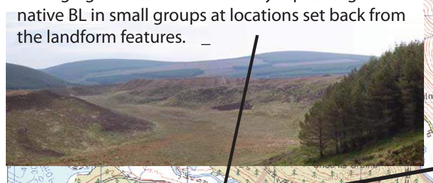
Rounded Hills

Majority of the forest area is located within this landscape character area. Forest margins- external, internal, fell areas and species shapes should relate to the sweeping nature of the landform. Coupes can be large, especially on higher ground, due to the vast scale of the landscape.

Tain and area around:
Woodland edge forms a distant backdrop to Tain beyond foreground of gently rising fields. Boundary of FC forest is not visible from Tain, located beyond private forests. As a popular recreation destination for local walkers, cyclists and horse riders maintaining and improving the internal landscape is important including views out and the internal visitor zones Aim for a level of diversity of spaces and characters to sustain users interest through out and help with orientation.

Straight edges of forest around powerline highly visible on corner- Improve over next rotation

Landscape design focus area:
Recent felling has opened up unique SSSI designated geomorphological glacial meltwater channels improving their appearance. To keep these features visible area should be kept free of encroachment by trees into future, by actively managing the moorland and only replanting with native BL in small groups at locations set back from the landform features.



Forest Farming edge

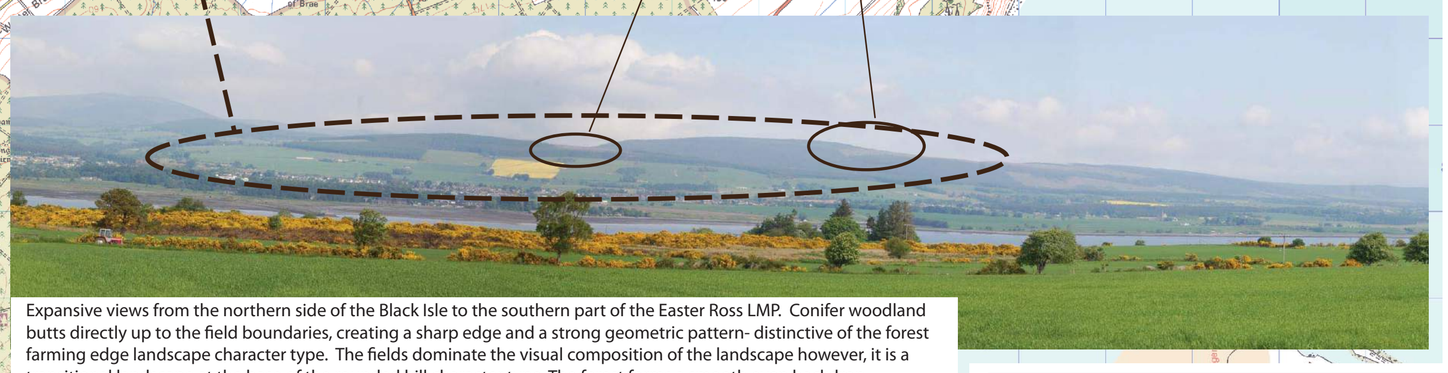
An obviously man made looking landscape where forest meets regular fields. The side slopes of the hills are widely visible. With the forest forming a smooth upper edge to it, views are unified. Restructuring of forest though large scale clear felling would leave the landscape looking fragmented. This should be avoided if possible.

Broad shapes of recent felling work with hill proportions. Its geometric shapes are at odds with the rounded shape of the topography. Brought about by a need to fell huge areas due to tree health issues (DNP) as seen on trees in the foreground), the area is undergoing rapid change.
Ensure future forest shapes of the next rotation (species, ride, open space and felling) reflect landscape character.

Enclosed farmland coastal strip with settlements and industry.

Forest forms the backdrop the this area in views from Black Isle and backdrop to the lives of people living and working along the A9 corridor here.

Where forest boundary meets open ground, at top of hill here, it breaks the form of the forest, which draws the eye and looks disjointed. Open areas are too small relative to the broad scale of the hillside and forest.
Infill planting would improve this where possible, however, where landownership restricts this, little can be done to improve landscape in the short term. Forest management felling should be large here at top of hill, at a scale that reflects landform.



Expansive views from the northern side of the Black Isle to the southern part of the Easter Ross LMP. Conifer woodland butts directly up to the field boundaries, creating a sharp edge and a strong geometric pattern- distinctive of the forest farming edge landscape character type. The fields dominate the visual composition of the landscape however, it is a transitional landscape at the base of the rounded hill character type. The forest forms a smooth even backdrop.
Management should aim to retain the continuity of the landscape structure by balancing the ratio of open fields and woodland in the planning, design, clearance and planting of felling coupes. The use of continuous cover management would minimise visual disruption. Any felling should reflect the gently rounded shapes of the landform and maintain integrity of the hill tops. Restocking should aim to improve interlock between forest and farmland by introducing BL where field boundaries meet forest edge.

LEGEND

- Forestry Commission boundary
- Kyle of Sutherland National Scenic Area
- SNH Landscape Character Areas
- Landscape design focus areas
- High quality internal views
- Discordant features which detract from landscape

0 1,000 2,000 4,000 6,000 8,000 10,000 Metres

Forestry Commission Scotland
Coimisean na Coillfearachd Alba

North Highland Forest District

Easter Ross Land management Plan

Landscape Analysis and Concept Plan

Scale : 1:50,000 @ A1

Date: Sept 2013

N

Cnoc an t-Sabhail, Cnocan a' Cheannaird and Hill of Tain are the high points on the smooth, board, upland mass that gently dips to the Dornoch Firth and Tain but is rounded with steep slopes to the south

Lines of visual force on the northern face show the direction of the ridges and troughs is in an east / north easterly direction. The open and species shapes identified bare no relationship with these lines of force- a key reason for the disjointed appearance of the forest. To improve the appearance of the forest greater linkage needs to developed between elements of the forest cover and the underlying landform.

Cnocan a' Cheannaird

Cnoc an t-Sabhail

Hill of Tain

Bold shapes of felling on dominant ridges compliments the landform's scale and shape to the south and west of Cnoc an t-Sabhail.

Current issues created by a complex mix of discordant, visually conflicting array of woodland elements on the broad hillside. The patchwork of woodland parts (species groups, open space, failed restocking, larger areas of even aged conifer blocks) are out for scale with each other and the hillside; geometric shapes confict with the flow of the landform; some blocks are too small to interlock with neighbouring shapes; and vertical species lines are perpendicular or horizontal to the contours.

Forestry Commission Scotland
Coimisean na Coilltearachd Alba

North Highland Forest District

Easter Ross Land Management Plan

Analysis of northern face of Morangie Forest

Scale : 1:20,000 @ A3

Date: Oct 2013

Legend

Discordant elements

Shapes of open ground / young planting lack unity with the blocks of evergreen conifers (not individually identified) - of which shapes / age classes themselves do not fit with flow of the with the landform .

Angular shapes of larch

Lines of larch

Straight lines of roads

Approximate limit of view from viewpoint on Dornoch bridge

Landform : lines of visual force

Up hollows, valleys and convex slopes

Down spurs, ridges and convex landform

Prominent hill tops

N

0 100 200 400 600 800 1,000
Metres

Species shapes appear like detatched patchwork due to their lack of unity with surrounding forest components and weak relationship with the scale and form of the hill.

Line of forest edge along skyline above open area

Small gaps make face look moth eaten

Straight edges perpendicular to or parallel with the contours do not relate to landform or rest of forest.

For decidous species areas to intergrate more effectively with the rest of the forest they would need to increase in area, extending further into the evergreen areas; relate strongly to the landform, building on natural features such as watercourses; and interlock more effectively with the evergreen conifer areas. An expansion of the areas of an intimate mixture of evergreen and deciduous species would assist this.

Simplified shapes in reflection demonstrate how unity can be delivered through the removal of the smaller bitty parts of the woodland

Area shown in detail above exemplifies issues seen across hillside

View from Dornoch bridge:_ Morangie forest is highly visible in views to south on this extensive, smooth elevated hillside. At present the forest appears fragmented, lacking unity. Most apparent during autumn, winter and early spring, it is also seen as here in the summer, by the number of visible lines in the forest, created by edges in the crop - few of these relate to the scale ,landform or landscape character leading to a chaotic patchwork of shapes.

Forestry Commission Scotland
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North Highland Forest District

Easter Ross Land Management Plan

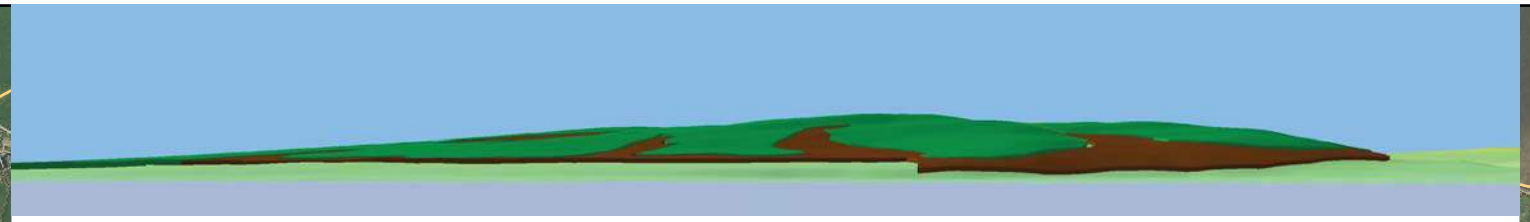
Morangie hillside- Landscape analysis / concept

Date: Oct 2013

Cnoc an t-Sabhail, Cnocan a' Cheannaird and Hill of Tain are the high points on the smooth, board, upland mass gently dipping to the Dornoch Firth in the north, west of the town of Tain. Located neighbouring the NSA, the hill is at the transition to the more diverse and complex coastal lowland landscape. Located due south of the Dornoch bridge, its wooded northern face is viewed by all road users travelling south.

Currently forested with a mix of broadleaves and evergreen and deciduous conifers, the hillside appears very fragmented as the internal forest shapes lack unity. This is the result of a complex mix of discordant, visually conflicting array of woodland elements on the broad hillside. The patchwork of woodland parts (species groups, open space, failed restocking, extensive even aged conifer blocks) are out for scale with each other and the hillside; geometric shapes conflict with the flow of the landform; some blocks are too small to interlock with neighbouring shapes; and vertical species lines are perpendicular to or horizontal with the contours.

Advise the creation of a broad landscape structure to provide unity across the hillside within which forest management can operate into the future. Improvement would be made through unifying shapes, reducing complexity and developing a strong BL network that links the bottom of the hill to top.



Visualisation from Dornoch Bridge, showing how the deciduous network would split up the bulk of the hill into sections, whilst adding connectivity from the upper to lower parts of the hillside.

- Within core conifer areas concentrate prescriptions around developing broad scale evergreen forest. If shelterwood systems are to be used to establish new generations of SP ensure felled areas' shapes relate to the scale (larger at the top of hlll, reducing lower down to the size of neighbouring fields) and flow of the landform.
- Avoid small patchy clearings /species shapes and thin to remove over time any that exist at present on this northern face.
-Thin out the regular larch lines but encourage larch to spread more widely into the evergreen areas, to become a minor species in an intimate mix with other conifers.

Either significantly expand this area of larch and mix with surrounding conifers to almost fill the area between boundary and deciduous network or remove

Infill open ground near the summit of hill to increase unity on the hillside.

Within linkage network, concentrate on managing for deciduous species. Diversity should be welcomed along with avoidance of regular straight species boundaries.
Allow infill of open areas where they interfere with the flow of the landform but retain and extend where they compliment the ridges and troughs, within the network area.
Thin out the regular larch lines but encourage larch to spread more widely within the deciduous corridors, as well as into the evergreen areas, where it would be useful as a minor species in an intimate mix with other conifers.

Forestry Commission Scotland
Coimisean na Coilltearachd Alba

North Highland Forest District

Easter Ross Land Management Plan

Landscape Concept

Scale : 1:20,000 @ A3

Date: Oct 2013

Legend

Forestry Commission ownership boundary

Proposed arrangement of a deciduous species network, which would create linkage across the northern face of Morangie. Its design reinforces the shapes of the hill, providing strong interlock with the rest of the hill where evergreen species can dominate. The shape extends outwith FC boundary to indicate how the forest sits within the landscape which does not end at the ownership boundary.

Landform : lines of visual force

Up hollows, valleys and convex slopes

Down spurs, ridges and convex landform

Prominent hill tops

Strategic aims of the future habitat and species proposals are to develop unity upon the visible face creating a strong deciduous network that links the bottom of the hill to top of Morangie hill, removing geometric shapes in the crop and reducing complexity on upper section thus improving the appearance of wooded hillside.

N

0 100 200 400 600 800 1,000 Metres

Linear, even side slope running parallel with top of ridge, with only slight changes in gradient along its length. Restructuring has commenced with some large fellings which have significantly improved its appearance.
Remaining mature forest should be divided into at least four coupes, which should interlock, accentuating what little landform there is, to ensure remaining blocks stay intergrated with the rest of forest.

Access to this section of forest is limited to road at base of hill.
Coupe shapes to be designed to open onto a section of the road to ensure proposed fellings are achievable.

Lower margin restocking design: FC ownership boundary is long and straight along base of hill, with a rectangular gap in middle.
Aim to intergrate lower forest margin with adjacent land and future crop, using low density native broadleaves and open space to create a diverse forest margin around base of hill.

Key views are form Dornoch Bridge and road on south side of Kyle of Suherland.

Area suitable for continuous cover management

Isolated block at end of forest sits uneasily on hillside, isolated from rest of forest . Perched near top of hill without any connection with lower slope it appears as if floating.
Consider early fell or realignment when other felling is taking place in woodland

Current stand unsuitable for continuous cover management during this rotation

Struie Hill is a steep sided prominent landmark feature on the southern side of the Kyle of Sutherland. Ridge is broad with rounded knolls. Currently upper forest margin crowds the summit and associated knolls in views from east.
Realignment of the upper margin, downslope would benefit views of hill from east. Working with landform, flowing around the spurs and rising in the gullies, amending upper margin would accentuate rounded hilltop.

Groups of natural regen above the forest edge interfere with the hill. Their impact will increase as they mature.
These too should be removed.

Forestry Commission Scotland
Coimisean na Coilltearachd Alba

North Highland Forest District
Easter Ross Land Management Plan
Landscape Analysis and Concept
Dounie Forest

Scale : 1:10,000 @ A3

Date: Oct 2013

Legend

- 10m Contours
- Sub-Compartments
- NSA boundary
- Exisitng forest margin
- Proposed forest margin
- Proposed Area to be reverted to open land on upper slopes of Dounie Hill

Landform analysis: lines of visual force
- Down spurs, ridges and convex landform
- Up hollows, valleys and concave landform

N

0 50100 200 300 400 500 Metres 1:10,000 @A3

Struie hill, partly located within the NSA is a notable landmark feature on the edge of moorland at the transition to the more diverse and complex coastal lowland landscape. Highly visible from around the Kyle, in particular from the B9176

Edge of main block of forest is very straight and parallel with contours, which exaggerates this straight edge. Straight edge of mature conifers at edge of fields accentuates appearance of the edge.
Ensure all links to trees within the landscape around the woodland are made most of, to increase unity allowing the forest to integrate with green networks within the locality. At restocking, increase diversity of species and planting density along outside edges to link with surrounding habitats.

Strip of trees adjacent to powerline and road form a link between the upper hill and the woodland at the base of the slope, anchoring it and unifying it to the surrounding landscape.
Way leave associated with powerline and road dissect across the woodland links.
Unavoidable safety clearance within region of powerline and road will dissect linkage between Struie wood and adjacent woodland below road, which will compromise landscape in the short term, leaving woodland on the hill appearing as if it were floating. Aim over time to establish a native tree and scrub margin favouring low growing species to be managed by regular coppicing to prevent need to further complete clearance in the future in this area.

Recent area felled has left a straight edge which runs perpendicular to the contours making it appear unnatural in the landscape. Fortunately this is not seen from key viewpoints however it is visible from further afield within the NSA eg Bonar Bridge. The straight edge does not relate to the landform on a prominent hill which draws the eye.
Future fellings, where possible needs to be aligned to follow design principles. Restocking should be planted to ensure the straight line is not perpetuated in the crop over the long term.

Key views are from B9176, especially tourist viewpoint overlooking Kyle of Sutherland NSA.

Cnoc a'Chlaiginn is a prominent landmark feature on the southern side of the Kyle of Sutherland. It forms the most northerly hill of an extensive area of rounded upland raised moorland. Struie Wood extends over much of the hill up to its summit. In the key viewpoint on B9176 the forest appears fragmented with the eye being drawn to the taller groups of trees and species blocks on the hillside. As their shapes do not relate to the landform they make the forest appear awkward. Forest is being managed by a mixture of clear felling and continuous cover prescriptions.
In order to improve the appearance of this hillside for the long term future, clear felling on the main face may be the easiest method to improve the basic shapes of the crop.

Straight edge of mature conifers above open steep sided gully. Size and density of mature crop accentuates the edge which is visible from the B9176.
Aim to increase diversity of species, tree height and density along this edge. With area managed through CCF, actively create gaps and encourage MB to become integrated with conifers along edge to link with those in gully. Encourage species appropriate to the soil such as birch, hazel, hawthorn, rowan, willow, wild cherry and aspen.

Forestry Commission Scotland
Coimisean na Coilltearachd Alba

North Highland Forest District

Easter Ross Land Management Plan

Landscape Analysis and Concept
Struie Forest

Scale : 1:10,000 @ A3

Date: Oct 2013

NSA boundary
Existing forest margin

Landform : lines of visual force

Up hollows, valleys and convex slopes
Down spurs, ridges and convex landform
Prominent hill tops

N

0 50 100 200 300 400 500 Metres
1:10,000 @A3

Ornamental rowan are present along roadside, in particular here. Look out of place in upland location.
Remove to prevent any spread through natural regeneration.

Linear narrow section of roadscape that is dull in appearance.
At replanting increase width of open space along road corridor and vary the alignment of the forest edge. In short term increase views into forest on eastern side through high pruning of some areas of edge trees a and planting some small groups of native species with visual interest (birch, rowan) in the verge.

Verge width is appropriate however appears dull due to lack of diversity of forest edge alignment, planting density, tree age and species.
Increase all aspects of diversity overtime.

Edge is sharp restricting views from road into linear clearing.
Realign woodland edge into a gentle curve to lead eye into open area. Remove natural regen from open a area to prevent it infilling over time.

Due to speed of travel of road users, gaps need to be sufficient to enable viewer to take in what they are seeing. This small block on roadside prevents views rather than directs them.
Remove this small block to maximise the areas of meltwater channel seen by road users and remove natural regen from open area to prevent it infilling over time.

Natural regen is crowding road and beginning to block views down into clearings below road. Currently small but likely to dominate in future.
Clear natural regen away form roadside to leave a wide open verge.

From road, this area no longer appears to be a clearing, with dense evergreen conifers screening the underlying terrain, reducing the impact of the landform.
Remove trees from this location and consider increasing open area to link with the adjacent clearing to maximise the areas of meltwater channel seen by road users. Remove natural regen from open area to prevent it infilling over time.

Trees well back from the roadside, with appropriate mix of species, colour, diversity.
Retain and replicate elsewhere.

Dull opening with solid straight edges of even aged dense pine / larch.
Increase diversity in forest to improve. In short term, thin and high prune.

Significant view over water channels in context with the surrounding landscape. Recent fellings have immeasurably improved the setting of these unique features, allowing viewer to see all of slope.
Retain open views across the strath.

Current alignment works well with a scattering of well spaced trees of diverse species. Over time it may become infilled.
Ensure management of open areas is retained to keep balance - prevent too much infill.

Small group blocks views into open channel area.
To emphasis the clearing, remove vegetation on this front.

Highly attractive edge where diversity of open space and tree species, size and density sit comfortably on the landform.
Retain into the future ensuring positive qualities remain.

Meltwater channel areas :
Recent clear felling of plantations from around these have significantly improved the appearance and setting of these designated geomorphological features.
Detailed analysis and proposals shown on another sheet.

Attractive edge of forest giving way gradually to open heath vegetation.
Retain into the future ensuring positive qualities remain.

Forestry Commission Scotland
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North Highland Forest District

Easter Ross Land Management Plan

Roadside planting B9186 Struie meltwater channels Analysis and Concept

Scale : 1:10,000 @ A3

Date: Oct 2013

Legend

Suggested amended shapes of planting blocks

N

0 50100 200 300 400 500
Metres

Forestry Commission Scotland
Coimisean na Coilltearachd Alba

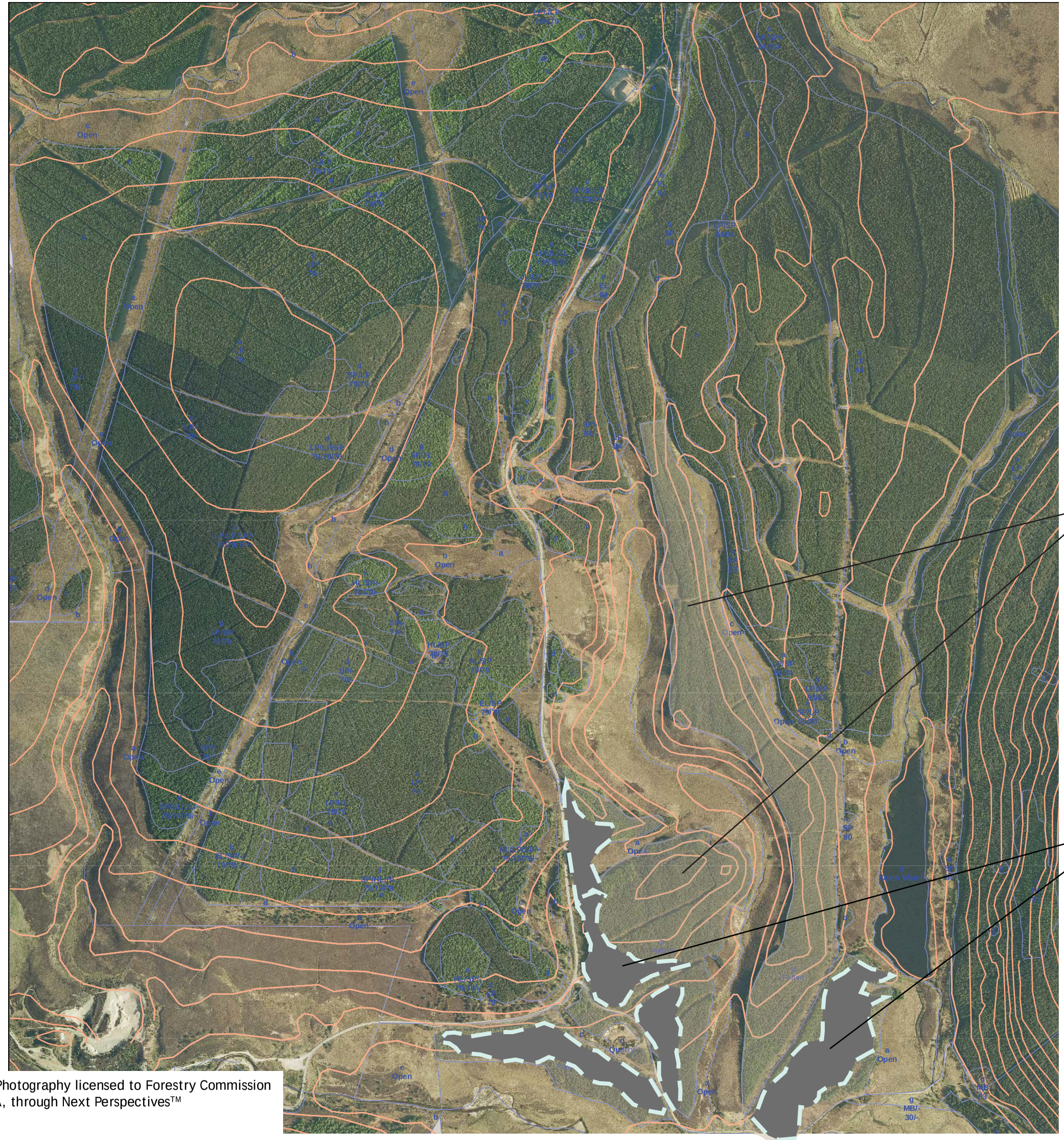
North Highland Forest District

Easter Ross Land Management Plan

Meltwater Channel area: Proposed replanting alignments

Scale : 1:10,000 @ A3

Date: Nov 2013



Advise that planting should not be reestablished onto these flat topped ridges as they are an integral part of the meltwater channel system.

Planting of scattered groups of native broadleaves, such as birch, rowan and Scots pine, to be restricted to selected areas away from the meltwater channels and associated flat ridges. Small amounts of natural regeneration onto the flat ridges could be tolerated but numbers should be managed.

A management regime of grazing the area may be useful to restrict natural regen over time.

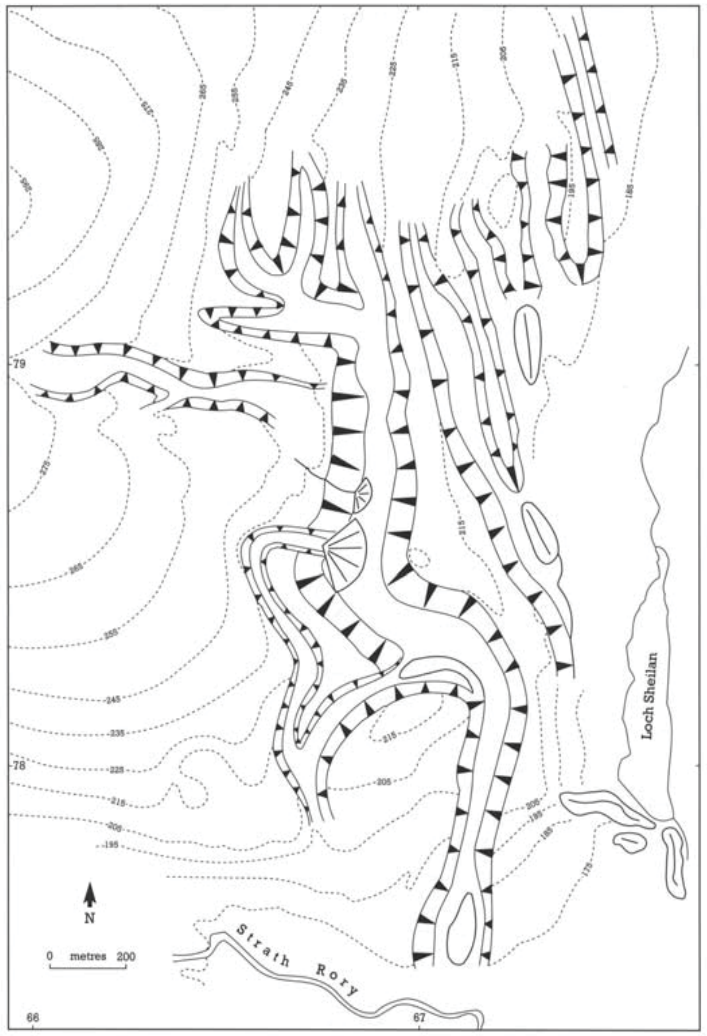
N

0 50100 200 300 400 500
Metres

Description of channels : extract from STRUIE CHANNELS J. E. Gordon, from Vol.6: Quaternary of Scotland http://jncc.defra.gov.uk/pdf/gcrdb/GCRsiteaccount1891.pdf

Well developed, good example of a glacial meltwater channel system formed during the melting of the Late Devensian ice-sheet; such systems are relatively rare in northern Scotland.

Up to 33m deep, 89m wide and 2.5 km long. In plan form, the channels show anastomosing and branching patterns, as well as parallel forms, and locally small cut-off loops lie perched above the main channel.



Geomorphology of the Struie meltwater channels, Strathrory (from J.S. Smith, 1968; Leftley, 1991).

Forestry Commission Scotland
Coimisean na Coilltearachd Alba

North Highland Forest District

Easter Ross Land Management Plan

Meltwater Channel area Landscape Analysis and Concept

Scale : 1:10,000 @ A3

Date: Nov 2013

Elongated flat bottomed gently dipping valleys with even steep sides, cutting through a smooth relatively level plain located to the north of Strathrory, Recent fellings have openned up the area, revealing the level plain through which the channels are cut. The removal of the trees allows the viewer to see the landform in its true state, rather than compromised into only seeing the steep sided slopes and valley bottoms.

Positive impact of felling has been so considerable. Due to flatness of the area and foreshortening effect, trees on any part of this level raised area would interfere with the flow of the landform.
Ensure benefits are retained in the long term. Keep all planting well away from the top of meltwater channels to ensure the rare features are presented in the best way- retain as open heath moorland.

Distinct spur seen clearly from car park viewpoint.
Keep all planting well away from the top of this area to ensure planting does not interfere with the flow of the landform

Integrity of landform is less distinct in this location, possibly due to impact of road. Being away from the main channels, and down slope from the open hill tops which are so important in framing the steep channel side slopes, some well spaced native groups of trees would be appropriate.

N

0 50100 200 300 400 500
Metres

Appendix XIII:

The following advice statement has been produced to assess current management and inform future proposals. The content is currently draft and will be included in the forthcoming National Stronghold Strategy document. The recommendations have been incorporated into the proposals for the revised Easter Ross land Management Plan and the spirit and detail of Stronghold management will be upheld during all forest operations.

Advice Statement for the Morangie Red Squirrel Stronghold Forest – Draft Output 28/05/13

Introduction

This note describes the Morangie Red Squirrel Stronghold and sets out a strategic summary of how FCS considers that it can be managed to meet the objectives of the National Stronghold Programme.

Morangie Stronghold is dominated by 20th century pine plantations, and is largely part of the National Forest Estate. It includes the Morangie Special Protection Area (SPA), and management for capercaillie has been a priority for the last decade. This management is broadly aligned with the Stronghold programme objectives. The Morangie Forest Design Plan is currently being revised as part of the Easter Ross Land Management Plan Revision. There are records of squirrels in the Stronghold, and it has a predicted scaled carrying capacity of 1062-1172 red squirrels. The nearest grey squirrel population is over 100 kilometres away.

Current Status of Stronghold:

A large stronghold with over 94% favoured species, less than 0.2% discouraged species and a scaled carrying capacity range of 1062-1172 red squirrels. There is commitment to long term retention of large areas of favoured species, with good defendability. Forest Plans are in place (under review) for the majority of the area with a commitment to Stronghold management. Stronghold is in fair condition, with some aspects which are not desirable in a red squirrel Stronghold.

Future Risks to Stronghold

There are some threats to the status of the Stronghold. External factors may be a threat (forest health), or past management decisions may affect the habitat. The Stronghold is largely dependent on a single favoured species, and the carrying capacity per hectare is predicted to reduce in the medium and long term.

Background:

Stronghold forests are large areas of coniferous and mixed forest identified as having potential to sustain resilient and healthy populations of native red squirrel over the long term. With suitable planning and management the Stronghold should provide the red squirrel with a competitive advantage over the introduced North American grey squirrel. Strongholds will therefore act as red squirrel refuges in the face of grey squirrel expansion. Stronghold management is based on five general principles, and this advice statement is structured around these principles with the intention of providing targeted advice which will maintain and, where possible, improve the Stronghold characteristics which are fundamental to providing good red squirrel habitat. In the Geographic Information System (GIS) analysis used to identify potential stronghold sites, Morangie was chosen due to its red squirrel population, separation from Squirrelpox virus, and the absence of conservation, silvicultural and development conflicts.

It is envisaged that Stronghold management will largely be delivered by individual land managers, and that appropriate management will be incorporated into Land Management Plans when they are updated or written. However a collaborative approach will be required, and certain aspects of Stronghold management, for example grey squirrel control, awareness raising and signage, particularly lend themselves to collaborative management. Furthermore there are opportunities for land managers within a 5-10km buffer zone to contribute to Stronghold management by, for example, choosing appropriate species and management approaches when creating or restructuring woodlands, and by cooperating over grey squirrel control if this is required in the future.

Description of the Morangie Stronghold

The Morangie Stronghold extends to 6684ha on the south side the Dornoch Firth, running from 0 to 380m above sea level. The Stronghold is dominated by 20th century Scots Pine and Lodgepole Plantations, with a network of older pines (dating to at least the late 19th century).

Over 63% of the Stronghold is over 30 years old, and there has been an increasing emphasis on Low Impact Silvicultural Systems. The Stronghold includes Morangie Forest Special Protection Area (favourable maintained), the Kinrive Strathrory Site of Special Scientific Interest (SSSI) (favourable maintained), and the Struie Channels SSSI (unfavourable maintained). It is also adjacent to the Dornoch Firth National Scenic Area, Special Protection Area and Special Area of Conservation. It includes significant areas of PAWS.

Recommendations for Managing the Morangie Stronghold: (these have all been adopted through the revised draft of this Easter Ross Land Management Plan)

The **overall management goal** for this Stronghold is to protect its strengths, to maintain a well-established population of red squirrels, and maintain a dependable and diverse food supply. These actions can be delivered by land managers in the Stronghold and within a buffer zone around the Stronghold. However some actions will be best delivered by a collaborative approach.

Item	Actions / Implications for Land Management & Operational Planning	Priority
Manage the Forest to Maintain a Dependable Food Supply		
Retain and increase availability of a diverse range of mature food sources.	Norway spruce should be retained wherever feasible, and additional areas planted where conditions allow. Build on this pattern in future restructuring.	**High**
	Deliver LMP commitments to Low Impact Silvicultural Systems.	**High**
	Ensure that deer numbers allow a diverse range of preferred species to become established	**Medium**
Seek to Resolve Conflicts with Other Management Objectives without Compromising the Success of the Stronghold		
Tree species	Species management in a buffer zone to the south of the Stronghold will be an issue if existing grey squirrel control measures are not successful. Management of broadleaf species could be used to strengthen the buffer zone E.G. reduce proportion of large seeded broadleaves.	**Medium**
	Beech regeneration in the Stronghold should be monitored	**Medium**
Capercaillie Management	The capercaillie SPA has informed past management. Management for capercaillie is also beneficial or neutral for red squirrel, however red squirrel can also benefit from the presence of spruce in the species mix.	**Medium**
PAWS Restoration	PAWS Restoration is an existing priority. PAWS represent a significant proportion of the Stronghold area, and comprise Scots pine on Caledonian Pine sites. Regeneration of contra-indicated species should be monitored, especially where they may form grey-friendly habitat corridors	**Medium**
Timber production	Timber production timing is informed by the Morangie SPA constraints, with an emphasis on LISS. Larger scale clearfells are more appropriate on poorer soils in upland areas which are less suitable squirrel habitat.	**Medium**
Native Woodland management and creation	Ensure that no large seeded tree networks are strengthened or created in either the Stronghold or the buffer zone	**Medium**
Plan for Red Squirrels at the Landscape Scale		
Grey squirrel incursions	These will be best planned for on a Highland Conservancy scale, using a collaborative approach. Support continued activity to ensure that grey squirrels do not reach the Highlands.	**High**
Plan Forest Operations to Reduce Short Term Impacts on Populations and Sustain Long Term Resilience		
Minimise operational impacts	Ensure that agency staff, managers, staff and contractors are aware of Stronghold status and appropriate site level interventions by providing advice and training	**High**
Establish a Monitoring System and a Review Process		
Monitoring	Pilot monitoring studies are being undertaken by Forestry Commission Scotland on the National Forest Estate. Until they are concluded monitoring should be undertaken and integrated with existing squirrel monitoring programmes. This may have an influence on future Land Management Plans.	**Medium**
Traffic mortalities	A requirement for traffic signage requirement may become apparent.	**Medium**
Review	Stronghold management requirements to be incorporated in Land Management Plan reviews	**Medium**
Interpretation and Public Awareness Raising		
Awareness Raising	Use a collaborative approach to engaging local communities with Stronghold management, especially where populations of red squirrel are already present.	**Medium**
Interpretation	Adopt a collaborative approach to determine an appropriate level of Stronghold interpretation. It is likely that such an approach will focus on enhancing existing facilities, rather than creating new ones.	**Medium**

Appendix 1–'SWOT' analysis of the Morangie Stronghold

	Current situation	**Possible responses**
Strengths *Circumstances that should support a viable red squirrel population*	Main land manager is committed to Stronghold management. 84% of the Stronghold is part of the National Forest Estate.	
	Morangie Forest has a Forest Design Plan in development that will reflect this commitment	
	Morangie is a medium Stronghold, with a small percentage of contra indicated species	
Weaknesses/constraints *Circumstances that could make it harder to support a viable red squirrel population*	Larger clearfells on the west of the Stronghold have an impact on the carrying capacity of the Stronghold	Continued management of the SPA will limit the impact on carrying capacity.
	Disease risk is a threat to pine species in particular, and may limit the species available for restructuring.	This is an issue that requires to be addressed at a Scotland level.
	Stronghold management is one of a number of items competing for the attention of forest managers Cost of species diversification and habitat management for squirrels are constraints	Provide resources and support for appropriate Stronghold management
	Deer numbers, soil and exposure limit options for species diversification	Vulnerable species will be protected by culling. Focus work on areas where soil and exposure are less of a constraint.
Opportunities *How to build on strengths and overcome constraints*	Scope to promote Stronghold to the public	Opportunities to include red squirrel information when interpretation is renewed, and to engage householders where there are existing red squirrel populations.
	Stronghold includes Morangie Forest SPA	Commitment to long term conservation management for Capercaillie will provide the opportunity to sustain a resilient red squirrel population
Threats *The constraints that might threaten the achievement of a viable red squirrel population*	Forestry operations will need to be managed with care. Pre harvesting inspections, harvesting operations, and restocking operations should be informed by the Stronghold status	Provide advice and training to staff and contractors working in the Stronghold Minimise the potential mortality from operations by maintaining canopy cover and not isolating felling coups.
	The Stronghold is vulnerable to incursions by greys if these reach the Highlands.	Prevention of grey incursions will be best conducted at a Conservancy scale.

Appendix 2 – Summary of information used for the Morangie Stronghold framework plan

Information – ideal amount of detail	Data source	What it identifies	Implications for managing the Stronghold
Area of Stronghold	GIS	The habitat network area includes at least 1 patch of conifer habitat > 200ha	It is a strategic priority to maintain this level of forest cover within the Stronghold boundary.
Area of different ownerships within the Stronghold	GIS / Conservancy	The proportionate contribution of each landowner to the Stronghold	Resources and, where needed, Conservancy help can be targeted to owners that need it.
Red squirrel population	Local RS group, NBN, FCS records	Presence of red squirrels and trend in numbers	Assessing the number of squirrels per hectare can provide a baseline.
Habitat suitability	FCS	Carrying capacity of Stronghold	Carrying capacity is the key measurement for Stronghold management
Species composition and spatial distribution, categorised as % favoured / discouraged species	GIS / Forest Plan	Diversity of seed supply	How to retain a long-term favourable mix of species through planting, felling and restocking.
Age structure: categorised as < 15 yrs, 15-30 yrs, and > 30 yrs	Forest Plan / landowner records	Dependability of seed supply	How to maintain or improve continued seed supply through planting/ restocking, e.g. where felling of cone-bearing stock needs to be delayed while younger trees mature.
Canopy cover	Aerial photos	Where higher % canopy cover is needed	Work to maintain canopy cover / linkage.
Area of open land within the Stronghold	GIS / Forest Plan / landowner records	% open space compared to canopy cover	Where zonation needed to accommodate both red squirrels and open-space species.
PAWS or nature designation	GIS	Potential conflicts with other conservation objectives	Appropriate management to resolve conflicts.
Felling plans	GIS / Forest Plan	i. Potential loss of food sources ii. Fell trees that encourage GS	i. Retain coning stock until young trees mature ii. Prioritise the felling of non-native LSBLs.
Proximity of grey squirrels and pox outbreaks	Local RS group	Risk of GS incursion	Likelihood of needing GS surveillance or control.
Proximity of tree disease	FCS	Risk of spread to Stronghold	Felling patterns and planting preferences need to accommodate this
Information on structure and composition of wider landscape and surrounding forest areas	i. Local RS group ii. Local authority	i. Proximity of GS and favoured habitat ii. Windfarm applications	i. Likelihood of needing GS surveillance or control. ii. Resolve any conflicts over planned development.

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