



Forestry Commission Scotland
Coimisean na Coilltearachd Alba

Beattock composite Design Plan Brief

DRAFT



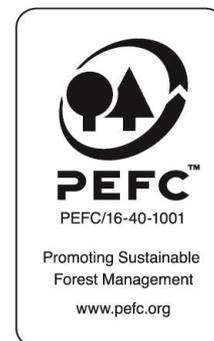
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We manage Scotland's National Forest Estate to the United Kingdom Woodland Assurance Standard – the standard endorsed in the UK by the international Forest Stewardship Council® and the Programme for the Endorsement of Forest Certification. We are independently audited.

Our land management plans bring together key information, enable us to evaluate options and plan responsibly for the future. We welcome comments on these plans at any time.



The mark of
responsible forestry





1. Background and key information

The Beattock composite land management plan is a long term plan for a number of the forest units at the North end of the Ae forest. This is a revision to existing design plans for all five blocks. This is the second revision for Earshaigs and the third revision for Greskine, Rivox, Blacklaw and Longbedholm. It is predominantly 1st and 2nd rotation Sitka spruce plantations, planted between the 1950's and 2014.

Block	Area (ha)
Greskine	841
Rivox	979
Longbedholm	441
Earshaigs	1157
Blacklaw	253
Total	3672

The Beattock composite contains a large reserve of softwood timber with a high financial value. It is partly restructured however faces challenge from windblow, timber extraction and climate. The majority of the forest is managed using a traditional clearfell approach with small areas of long term retention, open space and natural reserve. The climate of the site varies from warm, moist and sheltered in the valley to cool, wet and highly exposed on the majority of the area. Windthrow poses a significant risk, with DAMS scores ranging from between 10 to >22. The soils within the Beattock composite are a range of upland soils predominantly Peaty Gleys along with Gleys, Peat bogs, Podzols, Brown earths and Ironpan soils, generally having low nutrients and high moisture.

Species composition and age class distribution are shown in the tables below.

Species	Percentage cover %
SS	62.29%
Open space	24.68%
NS	2.74%
LP	1.98%
MB	1.71%
HL	1.58%
JL	1.56%
SP	1.15%
DF	0.51%
SY	0.27%
EL	0.25%
BI	0.23%

Age class	Area (Ha)
0-10	865.2
10-20	316.1
21-40	815.1
41-60	725.6
60+	43.7
OS	906.6

Scottish Natural Heritage classifies

the forest as Dumfries and Galloway Foothills, Foothills with forest and Southern upland in their Landscape Character types. 23ha of the Beattock composite is classified as Ancient woodland (of semi natural origin).

The Beattock composite is a habitat for a large diversity of wildlife. Several areas are designated as red squirrel priority woodland, along with being an important habitat for Black grouse, Goshawk, Owls, Otters and Badgers.

There are currently 4 scheduled and 53 unscheduled archaeological sites of value in the forest.

Landscape visibility is an important factor for the Beattock composite with over 30,000 vehicles passing by every day on the A74(M) (*Traffic Scotland.org*). Areas of the forest are also visible from Moffat, Beattock and other surrounding villages.

The Southern Upland Way passes through Greskine, Rivox, Longbedholm and Earshaigs on its route between Wanlockhead and Beattock as part of a larger path going coast to coast. Provision of other recreation facilities is limited.

There are 2 community councils covering the area Moffat & District and Kirkpatrick Juxta.

This Design brief is directed by the UK Forest Standard, Scottish Forest Strategy, Scotlands NFE and strategic directions, Dumfries and Borders FD strategic Plan, DumGal Council Dumfries and Galloway Forestry and Woodlands Strategy. The forest is certificated under UKWAS.



2. Key Drivers for design

Primary Aims

Productive

- Recognise the areas contribution to income for the NFE.
- Recognise the areas contribution to the local and national timber processing sectors.
- Recognise local proximity to timber processing plants and wood fuel markets
- Recognise potential impact of timber transport and use agreed routes including the new Annandale Timber haul route.
- Forestry and timber processing creates jobs, plan to maintain productivity into the future.
- Potential for small proportion of productive broadleaves in areas that facilitate management

The management objective is primarily to sustain a productive forest for the production of timber.

Healthy

- Opportunity to redesign the forest to better mitigate against the threat of increased wind with permanent (and independent) coupe shapes.
- Design forest to become more resilient to pressure from climate change including species diversity and structural diversity.
- Locking up carbon in peat and timber
- Water quality benefits of forestry
- Tackle invasive threats to the forest including high risk of Phytophthora
- Manage deer populations to levels to allow tree establishment.
- Climate change is increasing moisture deficit and data indicates that the site is suitable for at least one further rotation of Sitka spruce.

The management objective is to design a forest to be resilient to changes in climate and to provide mitigation through carbon lockup.



Treasured

- Recognise the importance of the landscape contribution along the A74(M) corridor, essentially making a visual gateway to Scotland.
- Consider forest design to give strong and stable visual identity to Scotland's productive forest.
- The openness and remoteness of the landscape is appreciated and treasured by many.

The management objective is to improve the landscape and develop it in an aesthetically pleasing way.

Secondary Aims

Cared for

- Restoration of Ancient woodland sites.
- To help diversify and support biodiversity increasing broadleaved species would be appropriate (productive broadleaves and permanent native broadleaves)
- Open habitats to be identified and protected (Survey 2016)
- The western edge of Beattock composite is an important Black Grouse Habitat.
- The large conifer forest is a home for red squirrels.
- Identify and protect scheduled and unscheduled ancient monuments.
- Protect water quality and consider downstream users.
- Bolster natural reserves and minimal intervention riparian areas with use of long term retentions.

The management objective is to protect and contribute to the wildlife, archaeology and landscape of the Beattock composite and surrounding area.



Good value

- Manage the forest with professional and competent staff and contractors.
- Manage the forest to UKFS standard and maintain UKWAS certification.
- Collaborating with neighbours/land managers including Annandale estates.
- Maintain an effective forest road network to efficiently deliver timber objectives.
- Maximise income from timber and non-timber forest products.

The management objective is to achieve the best value in delivery of public benefits.

Accessible

- Develop the area surrounding the Southern Upland Way to provide a more aesthetically pleasing environment.
- Aim to maintain open access throughout the forest on waymarked routes, core paths, countryside trails and informal routes.
- The development of the LMP should cross reference the Ae Master Planning exercise.

The management objective is to ensure that the forest is well promoted, welcoming and open for all



3. Design concept

Theme/Analysis (See section 2)	Design Concept
<p>Productive Large area suited to high yielding productive forestry</p>	<ul style="list-style-type: none"> Plant fast growing species for timber production, Sitka spruce will remain the largest component. Recognising that wind is a key limiting factor on rotation length and designing layout and rotation length to avoid windblow where possible. Limit thinning to the very best sites. Plan rotation lengths and felling age to maximise return. Design the future forest (the restock) to maximise the financial return whilst working within UKFS.
<p>Healthy Exposed non thin area heavily affected by windblow in the first rotation.</p>	<ul style="list-style-type: none"> Plan resilient coupe shapes that can be managed independently into the future. Ensure resilient edges. Use ESC to plan the right species for the right site. Increase species diversity where it helps meet multiple management objectives.
<p>Treasured Highly visibly sensitive lower slopes adjacent to the motorway and railway.</p>	<ul style="list-style-type: none"> Create an aesthetically pleasing landscape along the A74(M) corridor, "Gateway to Scotland". Consult with community and stakeholders during development of the plan and beyond. Create habitat for red squirrels.
<p>Cared for Some existing native woodlands around riparian zones with great potential to develop permanent habitat networks</p>	<ul style="list-style-type: none"> Increase the NBL to 5% in line with UKFS. Restore ASNW. Create Natural Reserves of 1% of conifer woodland. Design the forest to support Black Grouse and Red Squirrels. Identify and protect heritage features.
<p>Good value</p>	<ul style="list-style-type: none"> Plan effective timber transport routes for extraction from the future forest.
<p>Accessible Southern Upland Way passes through remote area of forest.</p>	<ul style="list-style-type: none"> Design the forest to best support and enhance the various public access routes leading throughout the forest including the Southern Upland Way.



4. Potential tree species and structure.

Tree Species	Current Forest Species %	Potential future Forest %	Reason for proposed change
Sitka spruce	62%	56%	Diversification to increase resistance to the effects of climate change, pests and disease.
Permanent open space	c20%	>10%	Permanent open space must be a minimum of 10 % to meet UKFS
Mixed native broadleaf	2.3%	>5%	Improves the landscape through variety in colour and shapes. 1% productive.
Norway spruce	2%	4%	Adds diversity while still producing a valuable timber.
Douglas fir	0.6%	1%	Adds diversity while still producing a valuable timber.
Western Red Cedar	0%	>0.5%	Adds diversity while still producing a valuable timber.



4. Glossary

AWS – Ancient Woodland Site

LTR – Long Term Retention

CCF – Continuous Cover Forestry

LISS – Low Impact Silvicultural Systems

UKFS – UK Forest Standard

FCS – Forestry Commission Scotland

AC – Alternative Conifers (alternative to Sitka spruce)

ASNW – Ancient of Semi-natural Woodland

MB – Mixed Native Broadleaves

PB – Productive Broadleaves

ESC – Ecological Site Classification

NW – Native Woodland

LEPO – Long Established of Plantation Origin

Appendix 1: Analysis and Concept Map

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