Forestry Commission England

North York Moors

Coate Moor Forest Design Plan

FDP 10

January 2012

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Coate Moor

154.9 Ha

Period of Plan: 2012 - 2021

1. Background

Coate Moor is located on the northern fringe of the North York Moors National Park approximately seven kilometres from the edge of Middlesbrough. The main part of the forest lies on a gently sloping moor, with steeper parts on Ayton Bank and above Easby Wood. The lease was acquired by the Forestry Commission in 1950, with additions made in the early 1960's. It has become a very popular wood for walking and is used by a large number of people to walk up to Captain Cook's Monument on Easby Moor.

2. Describing the Site

2.1 Geology and Soils (FDP Map 01)

Oolitic sandstone and shale are common throughout the wood, with boulder clay deposits on lower slopes.

The soils under the larger part of the forest are impeded by the presence of an iron pan. There are quite large areas of brown earth soils at lower elevations, but these tend to be extensively gleyed where drainage is poor, and there are localised peat deposits near Gribdale car park. Mining spoil is found at the surface adjacent to old workings.

The nutrient status for this block is split between medium across the brown earths and gley soils and very poor across iron pan sites. The moisture regime ranges between moist and very moist. As a consequence the woodlands currently support a reasonable range of productive conifer and broadleaf species.

In common with other woods within the locality, Coate Moor has areas that are challenging for forestry operations. Harvesting becomes expensive on the steeper slopes, where there is a machine-limitation compounded by surface rockiness.

2.2 Tree Species (FDP Map 02)

Pine is the dominant species group at 30%, comprised primarily of Scots pine with Corsican and Lodgepole as lesser components. Spruce and larch are the next largest

species group at 18% and 16% respectively. Pine and larch tend to dominate iron-pan soils whereas spruce is planted on gley and brown earth soil types.

At 24%, Open Ground is a significant feature at Coate Moor compared to 14% in November 2000. This is comprised of unplanted open space within the wood and open moor adjacent to moorland boundaries and is a direct result of landscape improvements at Easby Moor. A specific objective as highlighted in the previous plan.

Broadleaves account for 5% of the wood, dominated mainly by birch but alder, sycamore, ash and oak are also present.

2.3 Wind Damage (FDP Map 03)

Windthrow hazard measurements indicate the wood is relatively windfirm ranging from WHC 1 to 3, although on the upper slopes and heavily gleyed soils tree stability can be less certain. In light of this, management options may be restricted across parts of the property with regard to practising Continuous Cover Forestry and extending the rotation age of productive conifer crops.

2.4 Landscape

Coate Moor is situated in the Cleveland Hills, Upland Fringe landscape character area on the scarp between the Cleveland Hills plateau and the plain to the north.

Although predominantly coniferous in character, recent felling and restocking has created a more structurally diverse woodland. Awkward species boundaries have been addressed through recent felling operations. These sites will move through a period of succession where a mosaic of heathland and native broadleaf habitat will be allowed to develop and soften the impact of recent felling.

2.5 People and Community (FDP Map 06)

The wood is well used by local people and visiting tourists. Although the leasehold status of the woods means they have not been dedicated as open access under CROW legislation, Gribdale car park provides a popular starting point for a large network of public rights of way and informal FE paths/tracks.

The Cleveland Way long-distance footpath travels almost three and a half kilometres through Ayton Banks Wood and along the southern boundary of FE managed woodland at the top of Coate Moor. This and a number of other footpaths and tracks lead up to Captain Cook's Monument, a popular tourist attraction.

Great Ayton Moor Common cuts across part of the forest area although the grazing rights were secured by the Forestry Commission when acquiring the lease.

2.6 Natural Heritage (FDP Map 06)

The woods at Coate Moor are predominantly secondary plantation conifer woods, although approximately 10 hectares of low-lying land associated with alder carr and ash woodland at Easby Wood are designated as Plantation on Ancient Woodland Site (PAWS).

North York Moors SSSI/SAC/SPA at Great Ayton Moor lies contiguous to High Intake Plantation and upland heath communities are starting to develop across areas recently cleared of conifers adjacent to Easby Moor.

Records show a range of important declining woodland bird species have been sited within 2 to 8 km of Coate Moor including the increasingly scarce Spotted flycatcher (See Appendix 3). These are likely to benefit from continued management that will create and maintain a diverse range of woodland habitat.

The recent creation of wetland areas and ponds provides the opportunity to develop favourable habitat conditions for associated flora and fauna (i.e. bat species).

2.7 Cultural Heritage (FDP Map 06)

There is a round barrow scheduled ancient monument recorded at High Intake Plantation. Two other scheduled monuments lie adjacent to the property; Great Ayton Moor cairn cemetery and earthworks and Ayton Banks alum works.

Besides the above scheduled features, there are numerous records associated with Coate Moor's industrial past linked to stone quarrying and jet mining.

3. Describing the Project

3.1 Project Brief

- increase the proportion of native broadleaf cover, particularly across areas of PAWS, riparian zones and the upper slopes adjacent to open moorland

- manage designated sites in accordance with statutory requirements as per agreed management plans

- consider the selection of alternative main tree species that will contribute toward a greater range of species diversity to maintain or increase timber productivity

- increase the diversity of the age structure by adjusting current felling patterns throughout the wood and enhance external and internal edges

3.2 Objectives

- Conserve ancient and veteran trees and continue the restoration of PAWS to native dominant woodland, to be measured by the sub-compartment database.

- Ensure SAM's are maintained in target condition, to be monitored through liaison with English Heritage.

- Maximise and maintain a sustainable supply of timber from site-appropriate conifer and broadleaf species, to be measured by the Production Forecast and Sales Recording Package.

- Increase the woodlands contribution to the Cleveland Foothills Upland Fringe landscape character area where margins appear geometric and blocky. To be measured by fixed-point photography.

3.3 Constraints

- Difficult ground conditions and inadequate internal roading infrastructure restricts access for harvesting timber across parts of the forest

- the surrounding highway infrastructure presents challenging conditions for timber transport from the forest to markets

- projected climate change scenarios and forest pest and diseases are likely to challenge future tree species choice

3.4 Implementation

3.4.1 Conservation

Protect and, where appropriate, enhance all known sites of archaeological and ecological importance:

Archaeological sites

All sites, regardless of their designation, will receive the same level of care during the planning and execution of forest operations. The operational planning system will ensure they are recognised and the proper measures for their protection are in place before work begins. This planning system also ensures that, where possible, opportunities to enhance the condition of archaeological interest are taken during routine forest work.

Ecological sites

All work sites are surveyed prior to any operations both to audit the accuracy of information already held on record and to identify opportunities to further improve the ecological value of the woodlands. For Coate Moor this will include:

- Managing Veteran trees and PAWS as set out in – 'Ancient Woodland on the Forestry Commission Estate in England (March 2002)'
- Maintain designated sites in favourable condition. Reference will be made to site-specific management plans where these identify particular management issues that need to be addressed.
- Increase the diversity of species and age structure that will maintain and improve favourable habitat for identified habitats and target species. This is particularly beneficial for the range of priority woodland bird species recorded close to Coate Moor (Appendix 3).

3.4.2 Timber Harvesting

We will continue to sustainably harvest timber both from clearfell and thinnings, and where appropriate develop broadleaf stands to increase their contribution to timber production. These operations will be planned and controlled to ensure due regard for all other objectives of management at Coate Moor.

3.4.3 Landscape

The woods at Coate Moor lie within the North York Moors National Park, a designated landscape. Views are varied as the woodland, together with the neighbouring Kildale Estate woodland, wrap around all but the south westerly slopes of a conical hill on which Captain Cook's Monument sits. Near views are experienced from minor council roads and nearby settlements. Longer views of Ayton Banks Wood and Easby Wood can be seen from the low lying land to the north and west of the property.

With several public rights of way, including The Cleveland Way national trail running along and within the woods, woodland views are experienced by all who walk within the forest area and nearby locality.

On a scale of low/medium/high, landscape sensitivity is considered medium.

The adoption of Continuous Cover Forestry (CCF) across the core areas of Coate Moor, avoiding the more difficult and steep terrain at Easby Wood and below Ayton Banks Wood, will contribute toward the creation of more species and structurally diverse woodlands within the landscape.

The remaining areas will be managed on a high forest-clearfell system where the coupe size and shape are in keeping with the scale of the woodland blocks and the surrounding landscape. The resulting diversity in age and height that the clearfell system produces will enhance both external and internal views of the woodlands.

3.5 Plan (FDP Map 07)

The design concept map shows the key factors we need to address. These are taken forward and used to form the basis of a practical plan in the fell and restock maps.

3.6 Areas (FDP Maps 08 and 09)

3.6.1 Breakdown of felling areas within the period of the plan.

A map showing the location of felling sites can be found in the A1 Forest Design Plan folder.

Felling	Area - hectares	**% of total area**
2011 – 2016 Clearfell	**7.60**	**5**
2017 – 2021 Clearfell	**13.68**	**9**
Continuous Cover	**65.39**	**42**
Minimum Intervention	**12.54**	**8**

3.6.2 Breakdown of constituent areas.

A Future Habitat and Species map showing the location and detail of the constituent areas can be found in the Forest Design Plan folder.

Habitat type (based on principal species established)	**Area – hectares**	**%age of total area**
Conifer	**78.92**	**51**
Broadleaf *	**60.00**	**39**
Heathland, and planned open areas	**16.00**	**10**

***** An area of 1.9 hectares will not be converted from conifer to broadleaf species until after 2056. This area falls outwith the normal range of felling periods.

3.7 Methods / Forest Operations

3.7.1 Planning

Before any major forest operations are undertaken an “Operational Site Assessment” is completed. This document details the proposed work and outlines all known environmental, social and operational considerations. The “Operational Site Assessment” then becomes an important reference document during the planning phase, at the pre commencement meeting before scheduled works begin and for supervisory visits during the operation. The “Operational Site Assessment” is kept along with other documents relating to the operation in the main office.

For routine maintenance operations (e.g. fencing, ride mowing, survey work etc.) the North York Moors policy on timing of operations to minimise wildlife disturbance will be followed.

3.7.2 Standards

All operations within the forest will be carried out according to guidance contained in the U.K Forestry Standard, the U.K. Woodland Assurance Scheme, and will adhere to the guidance given in the Forestry Commission Guideline Publications (Forests and Water, Forests and Archaeology, Forest Nature Conservation, Forest Recreation)

3.7.3 Harvesting

The majority of the timber is likely to be sold standing and then contractors will be employed by the purchaser to carry out the work. Staff from both the timber buyer and the Forestry Commission will monitor work through regular site visits to ensure all guidelines and contract conditions are adhered to.

Clearfell V’s Continuous Cover Forestry

All plans are required to consider lower impact silvicultural systems (LISS) in windfirm conifer plantations as opposed to traditional clearfell systems. This decision is based upon the methodology provided in FC Information Note 40 – ‘Transforming Even-aged Conifer Stands to Continuous Cover Management’.

At Coate Moor, using the FC Forest Research Agency, Ecological Site Classification system (ESC), a range of conifer species are considered ‘optimum’ to ‘unsuitable’ for CCF where timber production is considered as an objective. We will only use ‘unsuitable’ species where local conditions minimise identified site limiting factors i.e. Douglas fir will be planted on better draining locations to reduce the limiting factor of winter soil

moisture regime (waterlogging), Norway spruce will be planted on north facing, water receiving sites to reduce the limiting factor of summer soil moisture regime (drought).

Steep sided, irregularly thinned sites with poor access and difficult harvesting terrain will be clear felled with a view to retaining mature, windfirm broadleaf specimens where possible.

See Appendix 2 – CCF justification.

3.7.4 Haulage

As in our other woodland blocks we will continue discussions with the relevant Highways Authority to agree haulage routes and discuss annual tonnages.

All timber traffic will be managed in line with the Road Haulage of Round Timber Code of Practice (2003), which aims to improve the safety and environmental standards of the timber haulage industry.

3.7.5 Restocking

Conifer

The areas of clearfell in the design plan will be replanted to diversify species and age structure and to continue to provide a sustainable timber resource, whilst mindful of the projected impacts of climate change. The FC Forest Research Agency, Ecological Site Classification system (ESC) will aid species choice and selection. At Coate Moor this will include the introduction of Douglas fir across the deeper brown earth soil types.

Although identified as suitable by ESC, Corsican pine is no longer considered appropriate for restocking due to forest health issues and there are concerns regarding the long term sustainability of larch. Although larch will no longer be restocked in pure stands, it will still be planted in mixture with other conifers at no more than 25%.

Both Sitka and Norway spruce are considered unsuitable by ESC at the 2080 high scenario, however they will continue to be grown across water receiving sites at the foot of slopes with a northerly aspect on gleyed and brown earth soil types. It is felt that localised conditions that reduce the impact of moisture deficit values will allow the retention of these species.

Unless restocking conifer sites with single species, reference to Mixed Conifer on the Future Habitat & Species Map will be used to describe those areas where a range of species will be planted across the site as follows:

Lower to mid slope - SS, NS (gleys), DF/HL (brown earths)
Mid slope - DF, SP, HL
Mid to upper slope - SP, LP, HL

As indicated at 3.7.1 Planning, the Operational Site Assessment will provide site-specific data on soils and other site factors that will help inform the correct choice of species on a site-by-site basis.

The continuous cover areas will be managed to encourage natural regeneration, although it is accepted that replanting will be required to further maintain and diversify the current range of species.

With ESC predictions at the 2080 high scenario indicating a reduction in the suitability of current main crop species being available for restocking, alternative species such as Macedonian pine, Oriental spruce and Coast redwood could be considered.

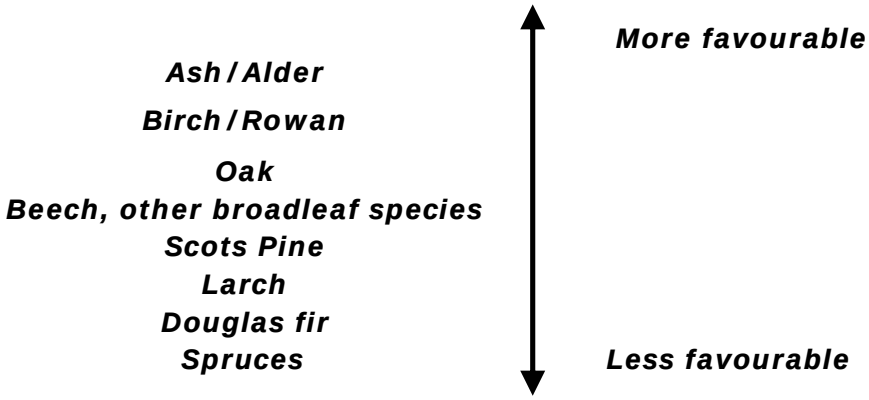
Natural regeneration across clearfell areas will be assessed and the risk it poses to the objectives of the plan considered as to its retention or removal.

Broadleaf

The small area of PAWS at Easby Wood will be restored to W7 – Alder/ash across the wetter, base–rich sites and W9 - Upland mixed broadleaf with dogs mercury where this has been influenced by localised drainage. Delayed thinning across these wetter areas has resulted in little or no understorey development below the existing spruce canopy. Extending the rotation age for gradual restoration is more likely to lead to windthrow, therefore clearfell and restocking by natural regeneration is proposed.

On non-PAWS sites planned for conversion to broadleaf woodland, we will accept natural regeneration of both native and non-native species i.e beech, sycamore.

Species regeneration on PAWS areas



Natural regeneration in PAWS woodland will be assessed and the risk it poses to the objectives of the plan considered. Where dense shade or invasive species (i.e conifer, rhododendron) threatens the native woodland community, it will be removed as soon as practicable. Where the risk is lower it will be allowed to reach a harvestable size and removed as part of a routine felling or thinning operation.

Heathland/Wooded heath

It is proposed to create a mosaic of upland heath and native broadleaf/mixed woodland habitat through natural regeneration across conifer sites that lie adjacent to designated and non-designated heathland. We do not intend to manage these sites for future timber production.

4. Monitoring

4.1 Clearfells

All clearfell areas are managed spatially using the Sub Compartment Database to ensure the boundaries and designs are accurately reproduced on the ground. Significant variances in the areas to be felled require a formal amendment of the plan plus the agreement of and approval by FC regional staff, as per CSM 6.

4.2 Restock

All restock areas where timber production is an objective will be planted/naturally regenerated and monitored to ensure that the number of established trees / ha fully meets the requirements of OGB*4. This document has mandatory requirements on the monitoring of the crop in Year 1 and Year 5 to ensure the establishment of at least 2500 trees / ha.

4.3 Continuous Cover

Continuous cover areas will be monitored using the methods and procedures contained in OGB*7. Similar in scope to the methods employed for restock areas, where timber production is the aim we need to have 2000 saplings / ha after 10 – 15 years, these should be evenly spread over 90% of the site.

4.4 Design Plan

All design plans are formally reviewed "mid term" and the plan, its aims and objectives and its success at achieving those aims and objectives will be formally reviewed in 2017. This time period can be shortened if circumstances change significantly or if parts of the plan prove detrimental to the overall aims and objectives.

*Operational Guidance Booklet

5. Determination of Impact Significance and Mitigation

5.1 Ancient and Native Woodland

*Threats to our ancient and native woodlands can be immediate and absolute (e.g. loss to infrastructure or development) or slower and more subtle (e.g. shading from conifer species or invasive species such as Rhododendron). There are also more widespread environmental changes, such as diffuse pollution and climate change, which may threaten in the long term. (*www.forestry.gov.uk/keepersoftime*)*

Major threats to ancient and native woodland are:

- *Climate change and fragmentation*
- *Excessive browsing and grazing by deer & livestock*
- *Inadequate or inappropriate management*
- *Invasive and problem species*
- *Diffuse pollution*
- *Loss*

Through this plan, we will continue to apply local and national policy and best practice guidance for the restoration of PAWS.

5.2 Flora

Heathland is a UKBAP Priority Habitat

Within woods, concentrate on open space habitat expansion and management, developing heathland, neutral grassland and acid mires.
(G. Peterken – Native Woodland Development in the North York Moors and Howardian Hills)

This plan will continue the management and development of heathland where this will improve habitat networks within and outwith Coate Moor, particularly adjacent designated heathland SSSI/SAC/SPA's.

5.3 Other Objectives

Concentrate on developing habitat – rich riparian corridors with marshes, meadows, woodlands, trees in farmlands. These would pass through both woodland and farmland. (G. Peterken – Native Woodland Development in the North York Moors and Howardian Hills)

We will continue to apply local and national policy and best practice guidance to the management of riparian corridors across Coate Moor. This will improve and enhance the habitat network within the woodlands and benefit protected species.

Continuing development of species and structural diversity will benefit habitats for priority woodland bird species throughout the woodland.

Appendix 2 – CCF justification

Site Factor	Suitability Score	Comment
WHC: range 1to 3	1	Tree stability is not a site-limiting factor
Soil fertility: Very Poor to medium	1	Isolated areas of medium fertility support a wider range of competing vegetation
Species suitability: (LP), (SP,EL), (DF,NS)	(1), (2), (3)	Corsican pine not considered due to RBNB and Larch due to phytophthora.

With a combined score ranging from 3 to 5, initial analysis indicates significant areas of Coate Moor achieve a good to moderate suitability score for transformation to CCF. Further analysis of stand structure is considered to help inform whether transformation should be considered.

- Stand form – Form is average and of a reasonable quality.
- Thinning history – Thinning operations have been carried out over a regular cycle, developing crowns that can act as potential seed bearing trees.
- There is little or no sign of early or advanced regeneration of any of the target species.

On the basis of the above information, we will consider CCF across even-aged conifer stands using a range of conifer species (pine, larch, spruce, fir), aiming for a simple stand structure. Currently, there is little evidence of a developing naturally regeneration resource. We will adopt a Group Shelterwood system through a combination of group felling (0.1 to 0.5 ha) and replanting across the existing stands.

Appendix 3 – RSPB Priority woodland bird species

Coate Moor	Great Ayton	N of records in 10km	Nearest Km distance
Hawfinch		1	8
Lesser redpoll		3	2
Marsh tit		8	3
Nightjar		3	2
Pied Flycatcher		1	2
Redstart		4	5
Spotted flycatcher		8	2
Tree pipit		4	2
Willow tit		8	3
Woodcock		10	2
Wood warbler		1	3
Garden warbler		✓	
Willow warbler		✓	

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England

North York Moors
Forest Design Plan 10
Coate Moor

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Coate Moor Location Map

N

Scale: 1:35,000

Printed Date: 08/11

COATE MOOR

View 1:- View from Easby Lane to Ayton Banks—Recent felling starts to break up the harsh geometric line between evergreen conifers and the adjacent heathland below Captain Cook's Monument. Semi-natural woodland and heathland flora will be allowed to develop across this visually important part of the forest.

View 2:- View from Great Ayton Moor to Gribdale Car Park – Recent felling and restocking operations are creating a more diverse forest habitat with a broader range of tree species and age structure.

View 3:- View from council road top of Cockshaw Hill to Ayton Banks – Views of even-aged conifer crops from Ayton Banks Wood down to Round Hill behind Gribdale Terrace. Future felling and restocking will look to create a more diverse range of age and tree species.

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Coate Moor - Soils Map

N

GREAT AYTON CP

LITTLE AYTON CP

1033 15Ha: a SP/Bl/SY/~ 64/64/64/~; b NS/- 64/-; c CP 68; d JL 35

1034 25Ha: a Open; b LP/SP 64/64; c SP/- 64/-; d Open; e CP 68; f LP/- 70/-

1035 21Ha: a SS/- 68/-; b Open; c CP/- 68/-; d AR/- 55/-; e AR 68

1036 13Ha: a LP/- 64/-; b SP/LP 57/57; c JL 57; d JL 90; e SS 90; f Felled; g -/MB/JL -/90/90; h SS/SP 59/57

1037 15Ha: a Bl/-/SS 97/-/97; b SP 2008; c SP 54; d SP/SS 59/59; e SS 59; f JL/NS/MB/- 54/60/54/~

1038 25Ha: a Felled; b CP/LP/SS 68/68/70; c SP 63; d Open; e LP 63; f JL 73; g Car Pk/Picnic; h NS/-/MB 64/-/98; i SS 67; j Open

1039 19Ha: a MB 99; b MB/- 99/-; c SS 99; d JL 54; e Open; f St/Sides; g -/SP/JL -/90/90; h JL/SS 57/57; i JL/SS/SP 2008/2008/2008; j JL/SS/- 57/57/-; k JL/SP 55/55

1040 9Ha: a JL/SS 57/57; b Felled; c JL 54; d Open; e JL/SS/SP 2008/2008/2008; f -/MB/SP -/90/57; g SP 57

Map 01 - Geology & Soils

- Brown Earths
- Iron Pans
- Gleys
- Flushed Peat Bogs
- Skeletal

0 125 250 500 750 1,000 Meters

1:10,000

Printed Date: 11/2011

Coate Moor - Current Species

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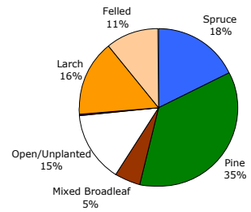
Pie Chart to show the planted area in % in Coate Moor



Map 02 - Current Species

- Open/Felled etc
- Broadleaves
- Lodgepole Pine
- Corsican Pine
- Norway Spruce
- Scots Pine
- Sitka Spruce
- Larches

0 155 310 620 930 1,240 Meters

Scale: 1:10,000

Printed Date: 08/11

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Coate Moor
Wind Hazard Map

N

GREAT AYTON CP

TTLE AYTON CP

1033 15Ha
a SP/BI/SY/~ 64/64/64/~
b NS/- 64/-
c CP 68
d JL 35

1034 25Ha
a Open
b LP/SP 64/64
c SP/- 64/-
d LP/- 70/-
e CP 68

1035 21Ha
a SS/NS/- 68/68/-
b CP/- 68/-
c SS/- 68/-
d AR/- 55/-
e SS 68
f Open
g AR 68

1036 13Ha
a LP/- 64/-
b Felled
c JL 57
d Open
e JL 73
f NS 64
g Open
h SS/SP 59/57

1037 16Ha
a BI/-/SS 97/-/97
b SP 2008
c SS 59
d SP 54
e SS 99
f SP/SS 59/59
g JL 54
h Open
i NS/-/MB 64/-/98
j SS 67
k NS/-/MB 64/-/98

1038 25Ha
a Felled
b JL/SS 57/57
c SS 90
d JL 90
e -/MB/JL -/90/90
f JL/SS/- 57/57/-
g SP 57
h SS/SP 59/57
i JL/SP 55/55
j JL/SS/SP 2008/2008/2008

1039 19Ha
a JL/NS/MB/- 54/60/54/~
b Felled
c JL 54
d Open
e JL/SS/SP 2008/2008/2008
f -/MB/SP -/90/57
g Felled
h -/SP/JL -/90/90
i St/Sides

1040 9Ha
a JL/SS 57/57
b Felled
c JL 54
d Open
e JL/SS/SP 2008/2008/2008
f -/MB/SP -/90/57
g SP 57

1041 31Ha
a Felled
b CP/LP/SS 68/68/70
c SP 63
d Open
e LP 63
f JL 73

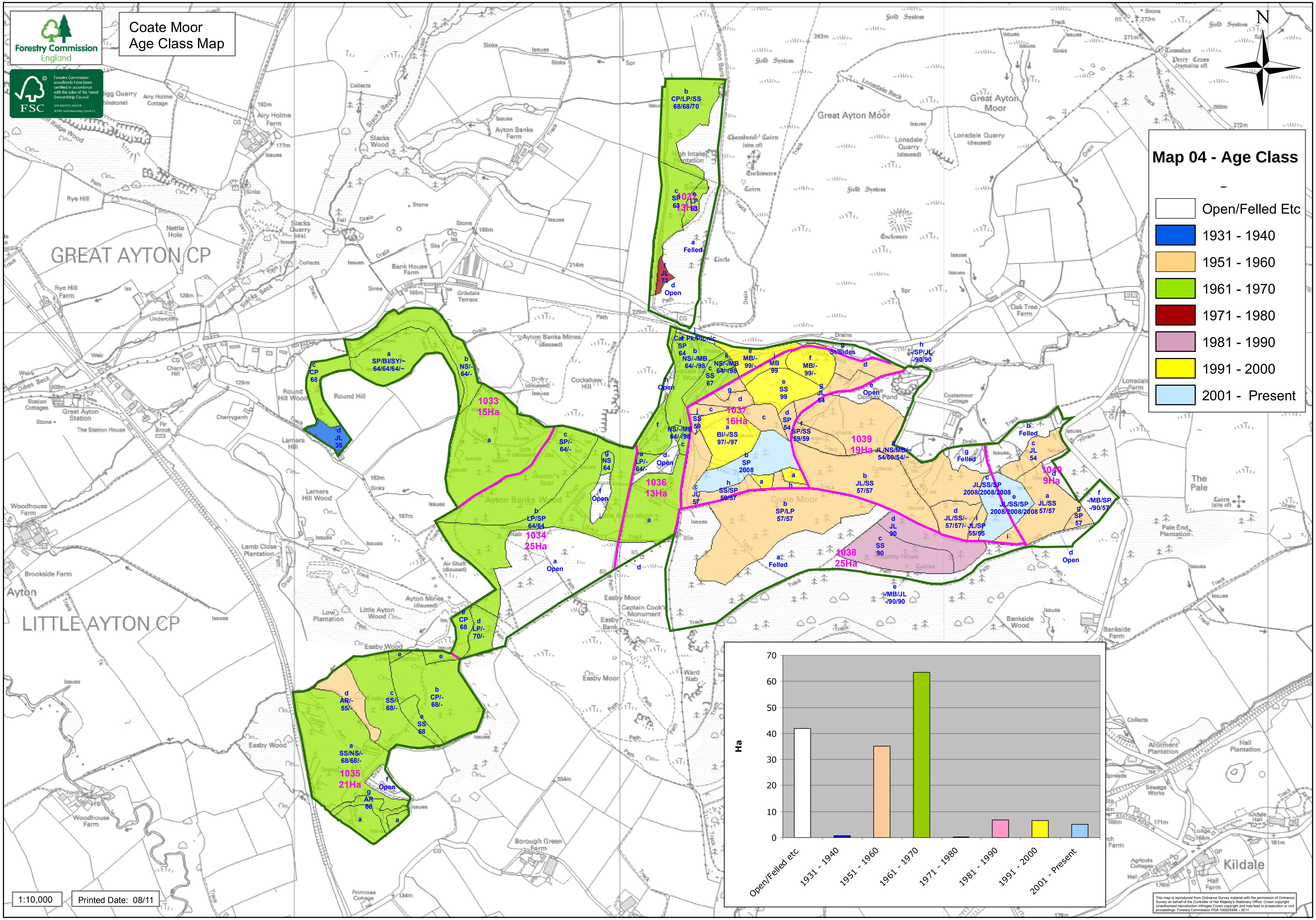
Map 03 - Wind Hazard Class

1
2
3

0 155 310 620 930 1,240 Meters

Scale: 1:10,000

Printed Date: 08/11



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Coate Moor
Age Class Map
Map 04 - Age Class
Open/Felled Etc
1931 - 1940
1951 - 1960
1961 - 1970
1971 - 1980
1981 - 1990
1991 - 2000
2001 - Present
GREAT AYTON CP
LITTLE AYTON CP
1033 15Ha
1034 25Ha
1035 21Ha
1036 13Ha
1037 16Ha
1038 25Ha
1039 19Ha
1040 9Ha
Ha
70
60
50
40
30
20
10
0
Open/Felled etc
1931 - 1940
1951 - 1960
1961 - 1970
1971 - 1980
1981 - 1990
1991 - 2000
2001 - Present
1:10,000
Printed Date: 08/11

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Coate Moor
Current Felling Map

N

GREAT AYTON CP

TTLE AYTON CP

1033 15Ha
1034 25Ha
1035 21Ha
1036 13Ha
1037 16Ha
1038 25Ha
1039 19Ha
1040 9Ha

Map 05 - Current Felling

- 2007-2011
- 2012-2016
- 2017-2021
- 2022-2026
- 2027-2031
- 2032-2036
- 2037-2041
- 2042-2046
- 2047-2051
- 2052-2056
- 2057-2088
- Continuous Cover
- Minimum Intervention

Scale: 1:10,000

Printed Date: 08/11

0 155 310 620 930 1,240 Meters

Coate Moor - Management Plan

Forestry Commission England

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N

GREAT AYTON CP

LITTLE AYTON CP

1033 15Ha

1034 25Ha

1035 21Ha

1036 19Ha

1037 16Ha

1038 25Ha

1039 19Ha

1040 9Ha

Map 06 - Management Information

- Archaeological feature
  - Point
  - Line
- Scheduled Ancient Monument
- Public Bridleway
- Public Footpath
- Management Area
- Great Ayton Moor Common
- National Park Boundary
- SSSI/SAC/SPA
- ASNW
- PAWS
- Compartments
- Sub-Compartments
- FC Roads

1:10,000

Drawn: Dec 2011

0 125 250 500 750 1,000 Meters

Coate Moor Forest Design Plan
North York Moors District
Analysis and Concept

Forestry Commission England

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Visually improve the woods within the landscape, particlularly hard-edged conifer stands along the upper slopes, adjacent to moorland SSSI, SAC, SPA sites.
* Allow current conifer stands along the upper slopes to be restored to broadleaved and mixed species woodland.
* Accept areas of open ground across these sites that allow a mosaic of habitats to develop.

Lower priority for conifer timber production after first rotation crop is felled across parts of the forest with challenging terrain and access.
*Convert existing conifer crops to broadleaf dominant woodland through natural regeneration and enrichment planting.

Restoration of ancient woodland to native dominant species remains a priority objective
* Felled conifer stands will be restored to native species by natural regeneration and enrichment planting if required.

Sustainable timber production remians a priority objective across the more accessible parts of the forest.
*Alternative conifer species i.e Douglas fir will be considered where conditions are suitable.

Improve the forests visual appearance within the wider landscape
* Allow recently felled woodland to move through natural succession enabling a mosaic of open heathland and native broadleaf habitat to develop

Map 07 - Analysis and Concept

- Mixed broadleaf/open habitat
- Convert conifer to broadleaf
- Productive conifer sites
- Ancient Woodland
- SSSI, SAC, SPA

1:10,000 | Print Date: 15/12/2011

0 125 250 500 750 1,000 Meters

Coate Moor - Proposed Felling Map

Forestry Commission England

Forestry Commission woodlands have been certified in accordance with the rules of the Forest Stewardship Council

FSC

N

GREAT AYTON CP

TTLE AYTON CP

Map 08 - Proposed Felling

Felling Year

- 2007-2011
- 2012-2016
- 2017-2021
- 2022-2026
- 2027-2031
- 2032-2036
- 2037-2041
- 2042-2046
- 2047-2051
- 2052-2056
- 2057-2088
- Continuous Cover
- Minimum Intervention

Proposed Harvesting Map

This map shows how we intend to manage tree felling in Coate Moor in order to meet the multiple objectives of management there.

Clearfells
Clearfells remove all or the majority of trees from the site. They allow significant changes in landscape, species and age class diversity to be achieved in a short space of time. They provide temporary open space followed by a slow succession of different habitat types each exploited by different flora and fauna.

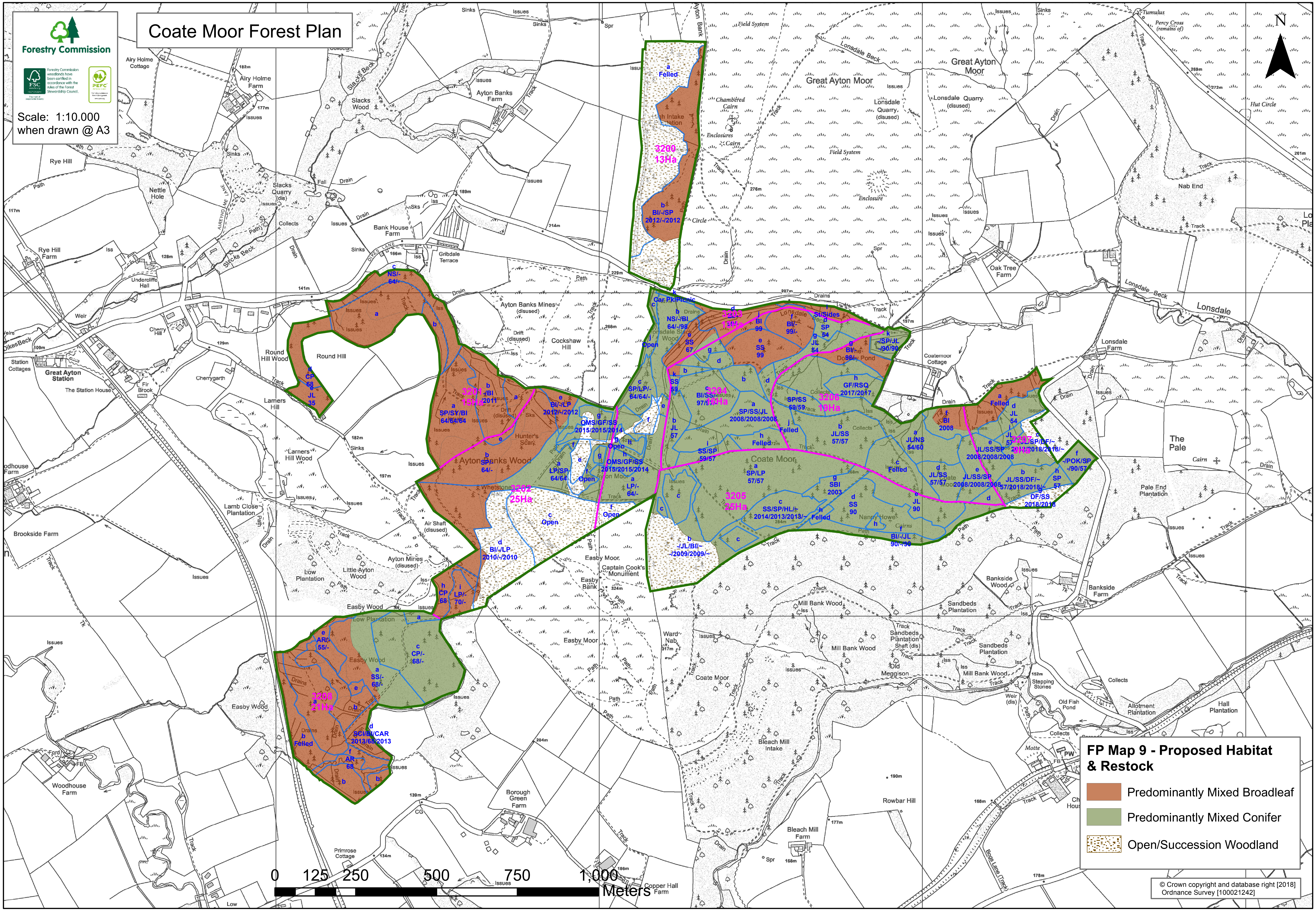
Continuous Cover
In a continuous cover system change is managed more slowly using a combination of heavier thinnings and small group fellings (normally no greater than 0.25Ha). The purpose of the thinning / felling operations is to produce timber and to allow enough light to reach the forest floor for replanting / regeneration to take place. The majority of the site has tree cover at all times and at one or more levels.

Minimum Intervention
Managed for conservation and landscape. Management will be very low key where areas will be considered as an ecological refuge. In exceptional cases some areas may continue to be thinned but only when, and for as long as, thinning can be clearly demonstrated to have a higher conservation or biodiversity value than not thinning.

1:10,000

Printed Date: Dec 2011

0 125 250 500 750 1,000 Meters



Coate Moor Forest Plan
Forestry Commission
Scale: 1:10.000
when drawn @ A3
N
FP Map 9 - Proposed Habitat & Restock
Predominantly Mixed Broadleaf
Predominantly Mixed Conifer
Open/Succession Woodland
0 125 250 500 750 1,000
Meters
3200 13Ha
3201 15Ha
3202 25Ha
3204 17Ha
3205 25Ha
3206 19Ha
3208 21Ha
Great Ayton Moor
Coate Moor
Ayton Banks Wood
Easby Wood
The Pale
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