Langdale Forest Plan

Forestry England

Forestry England forests and woodlands have been certified in accordance with the UK Woodland Assurance Standard (UKWAS)

Scale 1:10,000
when drawn @ A0

N

Langdale Forest

Allerston High Moor

Lockton High Moor

Lockton Low Moor

Harwood Dale Moor

Lowmorth Moor

Saltergate Moor

Hazelhead Moor

Grime Moor

Fen Moor

Newton Dale

FP Map 01 - Soils

- Typical Brown Earth
- Podzolic Brown Earth
- Typical Podzol
- Typical Ironpan Soil
- Typical Peaty Surface-Water Gley
- Typical Surface-Water Gley
- Calluna, Eriophorum vaginatum Blanket Bog
- Scree

0.35 0.17 0 0.35 0.7 1.4 Kilometres

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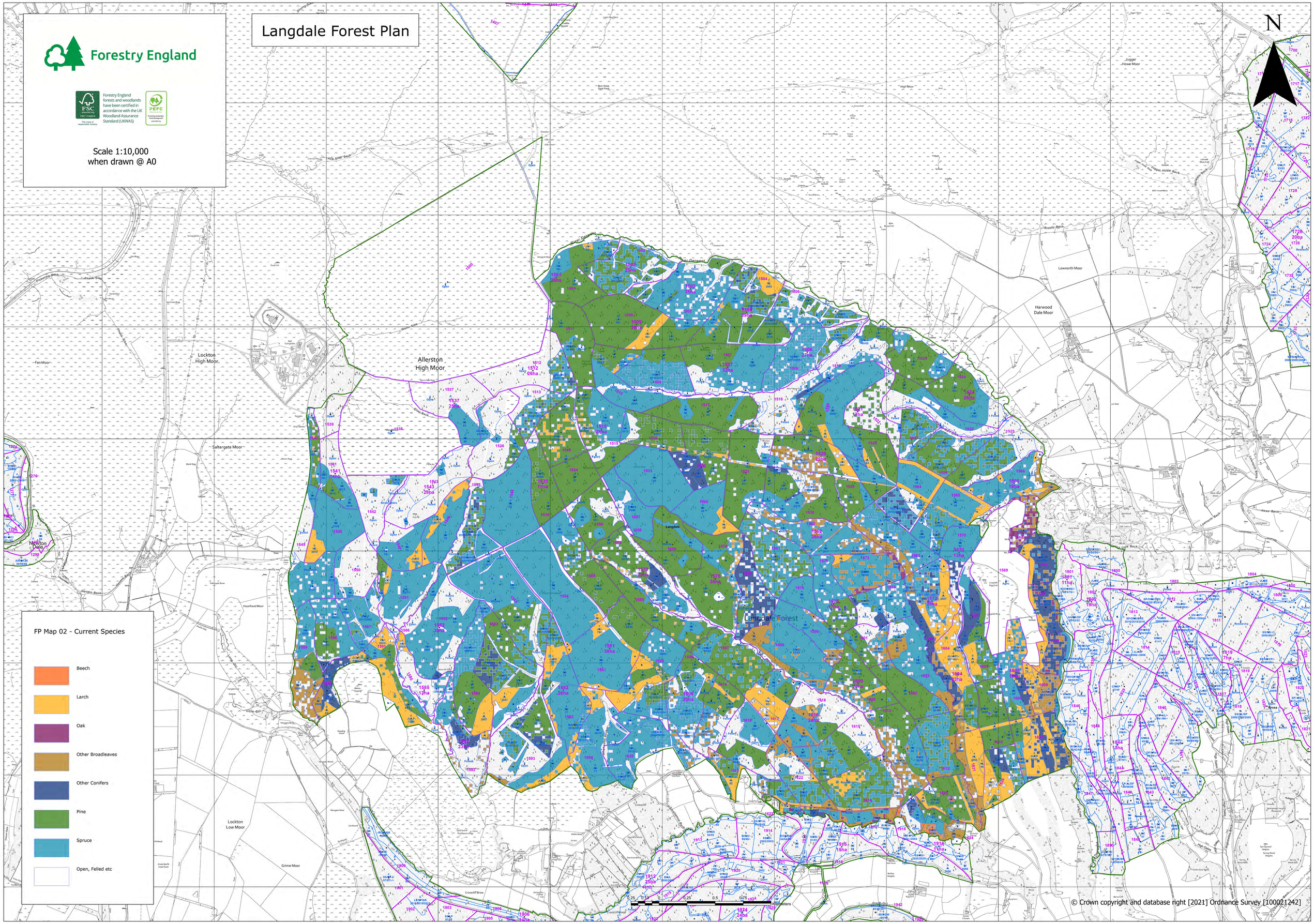
Langdale Forest Plan



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N
Lockton High Moor
Allerston High Moor
Harwood Dale Moor
Lownorth Moor
Hazelhead Moor
Langdale Forest
Lockton Low Moor
Grime Moor
Crosscliff Brow
FP Map 03 - Management Information
Sites of Special Scientific Interest
Special Areas of Conservation (SAC)
Special Protection Areas (SPA)
Scheduled Monuments
Ancient & Semi-Natural Woodland (ASNW)
Ancient Replanted Woodland
Plantations on Ancient Woodland Sites (PAWS)
CROW Dedicated Land
Heritage
Public Rights of Way
Moors To Sea Cycle Route
Water Networks
Kilometers
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Forestry England

Title: FP Map 04 - Analysis & Concept

Date: 29 October 2020

Author: Nigel Rylance

Scale @ A0: 1:10,000

- Forest block
- Convert and maintain as predominantly mixed broadleaf
- Continue to manage as predominantly productive mixed conifer
- Maintain as predominantly pine woodland
- Develop a mosaic of succession open woodland across a range of habitat types; upland heath, wooded heath, riparian buffer zones
- Scheduled monuments to be managed in line with agreed management plans
- SSSI, SPA, SAC to be managed in line with agreed management plans
- Restore and maintain ancient woodland sites
- Watercourses

*Sustainable timber production remains a priority objective across the forest whilst mindful of impacts from climate change on species choice and plant health.

* The introduction of alternative conifer species i.e. Macedonian pine, European silver fir and Coast redwood, will be considered for restocking where conditions are suitable. In addition, site-improving broadleaf species such as Aspen and Alder may also be included as a component of productive mixed species.

* Develop low impact silvicultural systems and extended rotation silviculture to allow natural regeneration and enrichment planting with alternative species to become established.

Restoration and maintenance of ancient woodland sites that are resilient to potential threats from climate change remains a priority objective within the steeply incised Barns Cliff valley system.

* Conifer stands will be restored to native species by a combination of felling, thinning, natural regeneration and reducing the negative impacts of invasive species. Enrichment planting will be carried out where primary species are unlikely to become established through natural regeneration.

* Ancient woodland sites will be buffered by converting adjacent conifer stands to predominantly mixed broadleaf woodland.

* Maintain existing and develop additional deadwood resource through management interventions and allowing natural mortality of large dimension trees.

Forest landscape character has been strongly influenced by the geometric design of conifer blocks, mixed woodland across replanted ancient sites within the Barns Cliff valley system and increasing open space associated with May Moss SSSI.

* Continue to design clearfell coupes that respond to landform and increase structural diversity, moving away from even-aged, single species crops to more mixed conifer/broadleaf woodland.

* Recently felled conifer crops and proposed felling will create positive landscape-scale change associated with May Moss SSSI and adjacent deep peat deposits.

* Ancient woodland restoration will be carried out in conjunction with the adjacent Broxa forest block to deliver landscape-scale change within Barns Cliff. Access to the site is challenging and will require carefully constructed forwarder tracks to deliver sustainable forest management.

The network of watercourses passing through and adjacent Langdale Forest connect with downstream waterbodies classed as 'poor' status under the water framework directive.

* Riparian corridors will continue to be created and managed that will replace conifer-dominant stands with a mosaic of successional habitats ranging from upland heath, acid grassland and mixed broadleaf/conifer woodland.

* Water vole and White-clawed crayfish are key stone BAP species that will require robust management systems across operational activity that will ensure water quality and habitats are maintained in target condition.

Lockton High Moor

Allerston High Moor

Saltergate Moor

Hazelhead Moor

Langdale Forest

Lockton Low Moor

Grime Moor

Lownorth Moor

Jagger Howe Moor

0 0.325 0.65 1.3 1.95 2.6 3.25 km

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FSC www.fsc.org FSC® C123214 The mark of responsible forestry

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PEFC PEFC/16-40-1001 Promoting Sustainable Forest Management www.pefc.org

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Langdale Forest Plan

Proposed Harvesting Map

The map shows how we intend to manage tree felling in Langdale 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.

Low Impact Silvicultural Systems

Change is managed more slowly using a combination of heavier thinnings and small group fellings (normally no greater than 0.5ha). The purpose of 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.

N

Harwood Dale Forest

Langdale Forest

Broxa Forest

Allerston High Moor

Lockton High Moor

Lockton Low Moor

Saltergate Moor

Hazelhead Moor

Grime Moor

Lowmoor

Harwood Dale Moor

Broxa

FP Map 05 - Proposed Felling

- 2022 - 2026
- 2027 - 2031
- 2032 - 2036
- 2037 - 2041
- Beyond 2042 or LISS
- Agriculture
- Long Term Retention, Open habitat, streamsides

0 0.25 0.13 0.25 0.5 0.75 1 Kilometers

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N

Allerston High Moor

Lockton High Moor

Saltergate Moor

Hazelhead Moor

Lockton Low Moor

Grime Moor

Jugger Howe Moor

Lowarth Moor

Harwood Dale Moor

Langdale Forest

Harwood Dale Forest

Broxa Forest

Broxa

Langdale

0 0.25 0.5 0.75 1 Kilometres

FP Map 06 - Management Type

- Clearfell
- Long Term Retention
- Strip shelterwood
- Group shelterwood
- Minimum Intervention
- Other\Open Land

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This map shows the main species groups that are to be used when restocking felled areas. Due to the constraints of map scale, unplanted areas are not shown unless they are greater than 0.5 hectares in size. This means that unplanted corridors such as along forest roads and rides will not be shown on this map.

Predominantly mixed conifer areas will be regenerated through a combination of planting and natural regeneration with appropriate species, dependent on the underlying site conditions such as soil and topography.

In addition, climate change projections and plant health issues indicate a reduction in the suitability of species such as Corsican pine and larch for restocking. Species showing drought tolerance and disease resistance characteristics such as Macedonian pine, Oriental spruce, European silver fir, Coast redwood and Douglas fir will be considered.

Predominantly mixed broadleaf areas will be restocked by natural regeneration primarily using site-native species. This will be predominantly birch but other species such as rowan, holly and oak are anticipated. We will also accept other species that are not site-native such as beech and sycamore where these meet management objectives. Enrichment planting may be used where there is insufficient regeneration or where we wish to further diversify the range of species present.

N

Langdale Forest

Allerston High Moor

Lockton High Moor

Lockton Low Moor

Saltergate Moor

Harwood Dale Moor

Lowmorth Moor

Jugger Howe Moor

Hazlehead Moor

Grime Moor

FP Map 07 - Future Habitat & Restock

- Predominantly mixed broadleaves
- Predominantly mixed conifers
- Predominantly pine stands
- Other inc. Open heathland, riparian corridors, blanket bog, agriculture etc

0 0.125 0.25 0.5 0.75 1 Kilometers

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