Eastmoors and Riccaldale Forest Plan
FP 50

2026

Yorkshire Forest District

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

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Forestry England - Property

Forest District:	Yorkshire
Woodland or property name:	Eastmoors and Riccaldale
Nearest town, village or locality:	Helmsley
OS Grid reference:	SE 5900 8887
Local Authority district/unitary Authority:	North York Moors National Park Authority

Areas for approval

	Conifer	Broadleaf
Felling (clearfelling)	121ha	-
Low Impact Silvicultural Systems regeneration felling	25ha	-
Restocking	50ha	72ha

1. I apply for Forest Plan approval for the property described above and in the enclosed Forest Design Plan.

2. I confirm that the pre-consultation, carried out and documented in the Consultation Record attached, incorporated those stakeholders which FS agreed must be included. Where it has not been possible to resolve specific issues associated with the Plan to the satisfaction of consultees, this is highlighted in the Consultation Record.

3. I confirm that the proposals contained in this Plan comply with the UK Forestry Standard.

4. I undertake to obtain all permissions necessary for the implementation of the approved Plan.
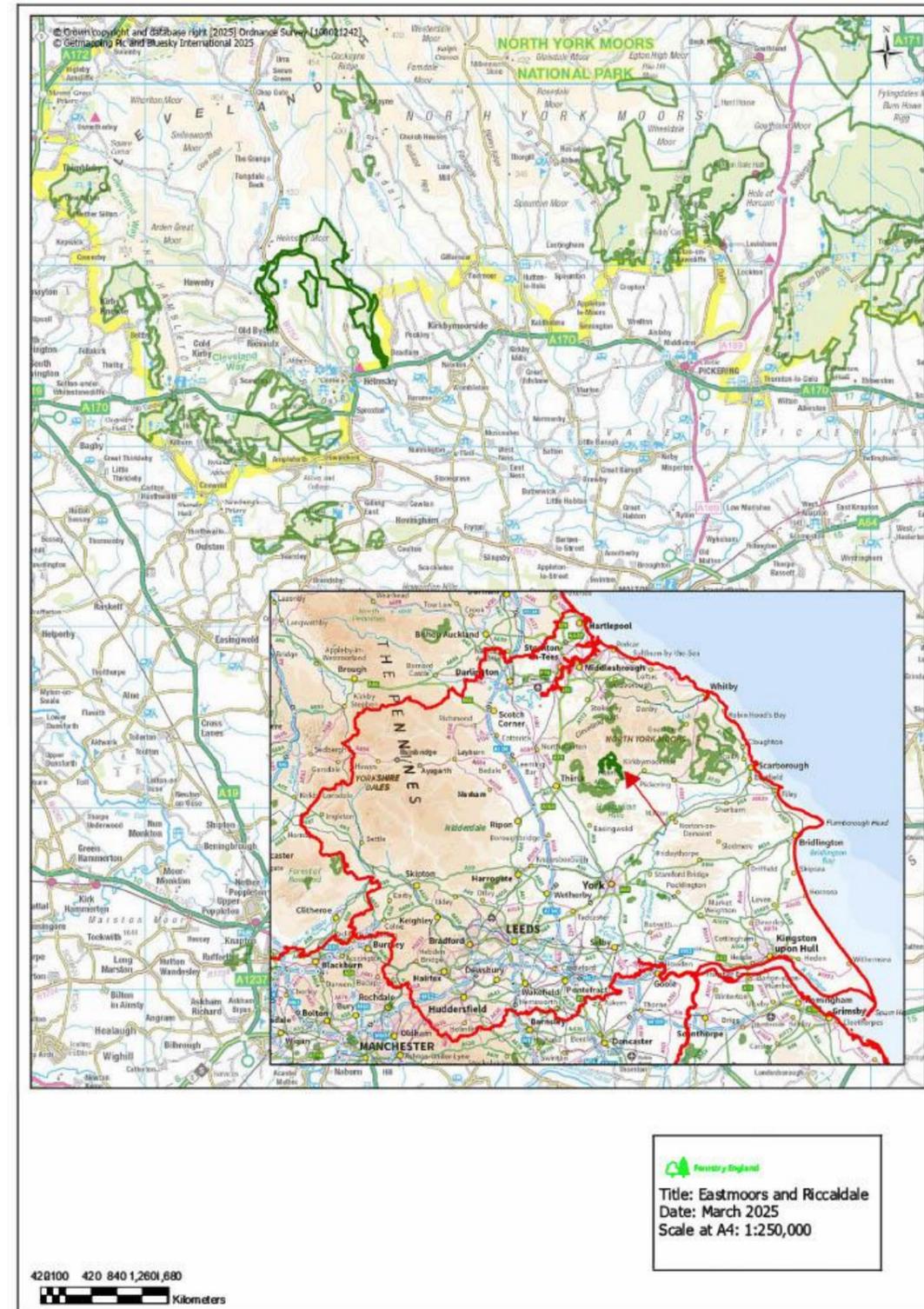

Figure 1 – Map showing the location of Eastmoors and Riccaldale.

Contents

Summary

This Forest Plan sets the strategic management direction of Eastmoors and Riccaldale Forest for the period until 2036. It builds upon previous plans and is informed by the forest's context and composition, including landscape, heritage, ecology, forest structure, tree species and habitats.

Opportunities and constraints are identified, and these inform a selection of management objectives. These objectives will contribute to Forestry England's strategic objectives for wildlife, people, and for climate.

The plan then provides detail on implementation and associated monitoring. The plan explains how Forestry England will continue to sustainably harvest timber using a range of silvicultural approaches. We are designing forest resilience into our plan for Eastmoors and Riccaldale by diversifying species composition and forest structure. The plan's approach to Plantation on Ancient Woodland (PAWS) is provided alongside detail on how forest management will be implemented to benefit Eastmoors and Riccaldale's wildlife.

A variety of maps and appendices are provided to support understanding.

General Principles

All operations within the forest will be carried out in accordance with the following standards:

- U.K. Woodland Assurance Standard
- U.K Forestry Standard 5th edition (published 2023)

All of our forests and woodlands are certified to the Forest Stewardship Council®(FSC®) licence code FSC-C123214 and the Programme for the Endorsement of Forest Certification (PEFC) licence code PEFC/16-40-1001 standards. We will maintain the land within our stewardship certified against the UK Woodland Assurance Standard, as independently assessed by annual surveillance audits.

Operational Planning - Before any major forest operations are undertaken, an Operational Site Assessment (OSA) is completed. The OSA details operational proposals and outlines all known environmental, social and operational considerations. It is an important reference document during the planning phase, at operational pre-commencement meetings, and for supervisory visits during the operation. The OSA is retained along with other related documents. Forestry England staff will monitor all work through regular site visits ensuring that guidelines and contract conditions are adhered to.

We will protect and where appropriate enhance all known sites of archaeological and ecological importance including areas of ASNW and PAWS, managing designated sites, such as scheduled monuments, in accordance with statutory requirements and in line with agreed management plans.

We apply local and national policy and best practice guidance to the management of riparian corridors, improving and enhancing the habitat network and benefiting protected species. Developing species and structural diversity will benefit habitats for priority woodland bird species throughout the woodland (Appendix 1 – Priority species).

Routine maintenance operations (e.g. fencing, ride mowing, survey work etc.) follow local policy[1].

Forest Resilience - We will continue to improve forest resilience to plant health, biosecurity and climate change threats through species and structural diversification.

Forest Development Types - During the lifetime of this plan, we will look to introduce the concept of Forest Development Types (FDTs)[2]: *"A Forest Development Type is a long-term vision of how the species composition and structure of a forest stand is intended to develop. The concept encourages the greater use of mixed-species stands and a wider variety of stand structure than previously deployed in British forests"*[2].

Low Intervention Silvicultural Systems (LISS) - All plans consider LISS based on methodologies in available guidance[3]. LISS with associated scale felling will contribute towards a varied and intimate internal and external forest landscape, with simple and complex stand structures creating a diverse visitor experience, whilst contributing toward structural diversity. Where existing coupes are not identif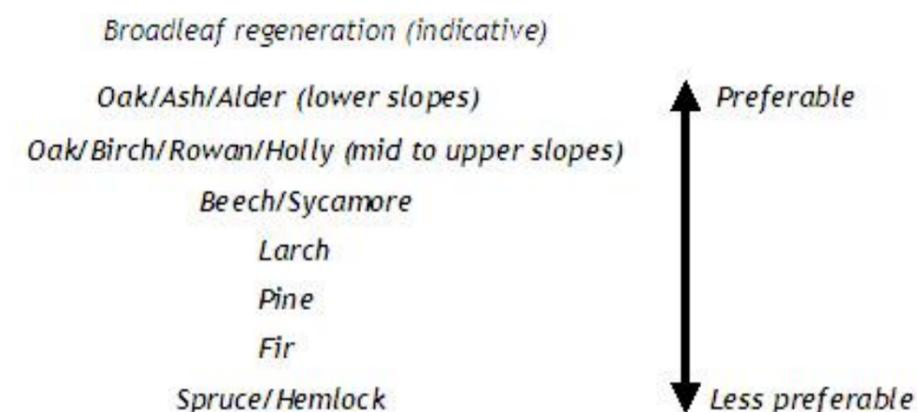ied for LISS management, we may consider managing these on an extended rotation basis to be thinned and monitored for future consideration for conversion to LISS. See Appendix 2 – LISS Justification.

Using the FC Forest Research Agency Ecological Site Classification system (ESC), a range of conifer species are considered 'optimum' to 'unsuitable' for LISS where timber production is considered as an objective.

Wildlife Management - Successful establishment of restocking sites through planting and/or natural regeneration requires effective control of crop damaging mammals. Although deer are present within the forest and surrounding farmland, good levels of natural regeneration indicate that browsing pressure is low. Damage levels will be monitored and managed[4].

Wildfire - Regarding wildfire, we will follow guidance as set out in 'FC Practice Guide – Building wildfire resilience into forest management planning'[5]. This will be applied proportionately dependant on a particular forest or woodland.

Natural Regeneration - Natural regeneration in PAWS will be assessed and the risks to the plan's objectives will be considered. Where dense shade tolerant or invasive species (i.e. Western hemlock) threaten native woodland communities, natural regeneration will be removed as part of routine felling or thinning operations.

Broadleaf regeneration (indicative)

Oak/Ash/Alder (lower slopes)
Oak/Birch/Rowan/Holly (mid to upper slopes)
Beech/Sycamore
Larch
Pine
Fir
Spruce/Hemlock

Preferable ↑ ↓ Less preferable

Native Woodland - Threats to our native woodlands can be immediate and absolute (e.g. loss to infrastructure or development) or slower and subtler (e.g. shading from conifer species or invasive species such as Rhododendron)[6]. There are also more widespread environmental changes, such as diffuse pollution and climate change, which may threaten in the long term.

Major threats to native woodland are:

- Climate change and fragmentation
- Excessive browsing and grazing by deer, livestock and grey squirrels
- Inadequate or inappropriate management

- Invasive and non-native plant species
- Diffuse pollution
- Pests and diseases
- Inappropriate recreational use
- Development and boundary incursions

We will continue to apply local and national policy[6,7] and best practice guidance for the management and development of our existing and new native woodlands.

Open space - Within woods we will continue the management of open space habitat, developing heathland, neutral grassland and acid mires where locally appropriate, in line with Forestry England's Open Habitat Policy[8]. Maintaining a mixed resource of temporary and permanent open space with diverse flora will provide habitat for priority species.

Woodland Composition - Over the lifetime of the plan where maintaining semi-naturalness is important, such as Ancient Woodland Sites, we will monitor and record levels of change through the Sub-Compartment Database and the resulting Semi Natural Class scores (Table 1). Across these sites we will maintain stands at SN Class 1 and gradually manage other sites towards this target composition.

Table 1 – Semi- Natural Class descriptions

Class 1	Semi-Natural Woodland
Includes native coppice woodland and high forest or site-native plantation with a relatively high percentage of native self-sown or coppice understorey.	
Class 2	Reasserting Semi-Natural Woodland
Plantation or ex-plantation with 50-80% site-native species. Includes coppice regeneration and/or strong natural regeneration amongst planted trees.	
Class 3	Plantation
Plantation with 20-50% site-native trees under established plantation stands	
Class 4	Plantation
Plantation with less than 20% site-native species. Includes all non-native broadleaves and beech planted outside its natural range in England.	

Haulage - 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, Fifth Edition (2020)[9], which aims to improve the safety and environmental standards of the timber haulage industry.

Eastmoors and Riccaldale Forest Plan

1100.7 Hectares (Ha)

Period of Plan: 2026 - 2036

1.0 Describing the site

Eastmoors and Riccaldale Forest is located in the south-west of the North York Moors National Park (SE 5900 88871, W3W//offices.dame.apartment), located due north of the market town of Helmsley. The forest is composed of conifer and broadleaf plantations, ancient woodland, and open areas of heathland, grassland and agricultural land. The forest is managed by Forestry England and owned under leasehold.

1.1 Geology and Soils (FP Map 01)

Underlying geology is varied across the site. The valley and dale sides are underlain by soft Lias mudstones and Cleveland ironstone with thin limestone beds and the plateau sites by Lower calcareous grit (sandstone) and Ooidal limestone. The lower lying sites at Roppa and East Moor Wood are underlain by sandstone, mudstone, siltstone and limestone associated with Long Nab, Moor Grit, Scarborough and Cloughton formations.

Soils at Eastmoors and Riccaldale follow the geology, with a predominance of iron pan and podsol soils over the sandstone grits on the plateau, brown earths along the valley/dale sides and Carlton Park Woods and podzolic peaty surface water gleys at Roppa Wood.

1.2 Tree Species (FP Map 02)

Conifer is the dominant species group (52.9%), comprised mainly of pine species (25.5%) and larch species (19.6%). Broadleaf areas (25.7%) contain mainly birch (8.4%), sycamore (5.3%), ash (4.8%), and oak (3.3%).

Tree species diversity can be measured using the Shannon Index which combines the number of species present with their relative abundance. The Shannon Index score for Eastmoors and Riccaldale block in 2025 is 2.44. This is more diverse (at the block scale) than the average for Yorkshire Forest District (2.17).

Table 2 – Species composition by main species.*Including as a component in mix with other species.

Species*	2025 (%)
Pine	25.5
Broadleaf	25.7
Larch	19.6
Spruce	5.6
Other evergreen conifer	2.2
Open	6.2
Other; felled, agricultural etc.	15.1

Table 3 – Areas of Semi-natural Classifications (see General Principles) across Eastmoors and Riccaldale.

Semi-natural Score (PAWS only)	Sum of area (ha)
1	54.1
2	18.9
3	10.6
4	52.7
Other (e.g. open space)	0.3
Grand Total	**136.6**

1.3 Wind Hazard

Eastmoors and Riccaldale typically has a low risk of wind damage, although some areas are more exposed and vulnerable to wind damage. Forest Research's ForestGALES tool indicates that large areas of the block are relatively windfirm and significant windblow events are expected to be infrequent. As a result, Low Impact Silvicultural Systems (LISS) continue to be a viable management option across most of the site.

Areas of Roppa Wood and Heater Rigg are more exposed and have a higher Wind Damage Risk Status. In these areas (approximately 10% of Eastmoors and Riccaldale) tree stability is less certain and the range of suitable silvicultural approaches is smaller.

1.4 Landscape

Eastmoors and Riccaldale Forest sits within the Limestone Hills and Moorland Dales Landscape Character Areas in the North York Moors National Park[10]. Elevation ranges from 60m at the lower end of Riccal Dale valley, rising to 328m on the edge of the forest plateau at Rievaulx Moor.

Management over the past 25 years has gradually increased the area of broadleaf woodland from 19% in 2000 to 25.7% in 2025. Along with the introduction of carefully designed LISS management, Eastmoors and Riccaldale is more structurally diverse and contributing to the characteristics of the Landscape Character Areas in which it sits.

1.5 People and Community (FP Map 04)

Eastmoors and Riccaldale is generally less heavily used by people than other forests in the North York Moors National Park. However, extensive Public Rights of Way and two car parks at Newgate Bank and Cowhouse Bank provide opportunities for walkers, ramblers, and other users to access the forest and surrounding moorland.

Forestry England own the forest under a leasehold and the main freeholder has retained sporting rights. These are exercised through an active pheasant shoot primarily through the woods of Riccaldale. The lease terms restrict potential recreational development and current facilities remain limited.

1.6 Natural Heritage (FP Map 04)

Within Eastmoors and Riccaldale there is one designated Site of Special Scientific Interest, Snaper Farm Meadows, notified for its unimproved neutral grassland, representing the largest known complex of such grassland in the North York Moors National Park.

In addition, the North York Moors SSSI/SAC/SPA runs contiguous with Eastmoors and Riccaldale forest boundary at Rievaulx and Helmsley Moor, notified for its mire and moorland vegetation communities and its heathland bird assemblages.

Although Eastmoors and Riccaldale is a predominantly conifer forest, 24% are classed as Ancient Woodland Sites. There is 126 ha of Ancient Semi-Natural Woodland (ASNW), mainly in Riccaldale. Native woodland types include W9 Ash with hazel coppice, with good examples of both W7- Alder carr/ash woodland and W10 oak/ birch – woodland with good ground flora and large mature trees throughout. There is also 137ha of Plantation on Ancient Woodland Sites (PAWS), 12% of Eastmoors and Riccaldale's total area. On average, 47% of tree species by area in PAWS are native or honorary/near-native species.

Eastmoors and Riccaldale Forest is home to a wide range of international, national and regionally important species due to its mosaic of different habitats. These include Schedule 1 and priority woodland bird species, notable local lepidoptera, floristically diverse mire and herb rich habitats, and colonies of Northern hairy wood ant (see Appendix 1).

1.7 Cultural Heritage (FP Map 04)

Eastmoors and Riccaldale Forest contains a rich and regionally important resource of historic features with over 80 unscheduled monuments including: medieval holloways, post-medieval limestone quarries and kilns, 19th century coal mining bell pits, an 18th century water race and more recently, Defence of Britain second world war military base at Carlton Camp.

2.0 Describing the Project

2.1 Project Brief

Forestry England's purpose is to secure and grow the social, economic and natural capital value of the nation's forests. Different forests will deliver against our purpose in different ways depending on site conditions, constraints, and opportunities.

Forest Plans provide a holistic and long-term approach to planning and forest design. Forest plans will refer to other documentation, such as SSSI management plans, where appropriate.

Throughout the period of this plan, we will balance objectives for wildlife, people, climate and economy by considering the opportunities and constraints present at Eastmoors and Riccaldale Forest.

2.2 Opportunities & Constraints

Opportunities

- Eastmoors and Riccaldale has a relatively high level of tree species diversity, including many productive conifer species. Much of the forest is suitable for Low Impact Silvicultural Systems (LISS) which will further enhance the forest's ecological resilience, including the resilience of ecosystem services such as timber production[11].

- Most of the site benefits from good road access which facilitates forest operations and the extraction of timber.

- Restoration of significant areas of Plantation on Ancient Woodland Sites (PAWS) and the transition of neighbouring stands to predominantly broadleaf woodland presents a significant opportunity to improve ecological connectivity and integrity through the landscape.

Constraints

- Very steep terrain, especially in areas of PAWS in Riccaldale, constrain the pace and viability of forest operations.

- There are mixed land uses present, including gamebird shooting, that impact ground flora, recovery of ancient woodland indicator species, and the site's broader ecology in complex ways[12,13].

- Significant ash (4.8%) and larch (19.6%) components are at risk from the tree diseases ash dieback (*Hymenoscyphus fraxineus*) and *Phytophthora ramorum* respectively. Across the site, larch is often present in relatively large single species sub-compartments. There is a risk of significant landscape and ecological impact should they be infected and subject to Statutory Plant Health Notices and associated felling.

2.3 Objectives and Implementation

	Objectives	Implementation
Wildlife	• Continue the restoration of Plantation on Ancient Wood Sites, aiming to elevate the semi-natural score of these sites by at least one class by 2044, moving them towards a more dominant native canopy and a richer, more natural woodland environment. • Improve soil health and nutrient cycling by reducing soil damage and supporting populations health of Northern Hairy Wood ant (*Formica lugubris*).	• Restore Plantation on Ancient Woodland Sites (PAWS) in line with guidance[6,7,14]. Seek funding to support restoration of challenging or inaccessible PAWS. • Increase the deadwood resource[15] by retaining different types of deadwood (especially deadwood from native tree species) where safe to do so. Explore tree veteranisation in areas of ancient woodland (including PAWS), located strategically to increase connectivity of veteran tree habitats[16]. • Increase the diversity of tree species and age structure to maintain and improve favourable conditions for target species and identified habitats. • All work sites are surveyed or screened prior to any operations being carried out to audit records and to identify opportunities to further improve the ecological value of the woodlands.
People	• Maintain and enhance the contribution of Eastmoors and Riccaldale to the Central Limestone Hills and Moorland Dales Landscape Character Area through the design and delivery of LISS and clearfell forest operations.	• The scale and shape of LISS and clearfell operations will be designed in-keeping with the scale of the forest and the surrounding landscape. Continue to restore PAWS and diversity the structure and species composition of the forest. • All heritage features will receive the same level of care during the planning and execution of forest operations. Operational planning will identify appropriate measures for the protection of heritage features before work begins, and, where possible, opportunities to enhance the condition of heritage features will be taken.
Climate	• Improve forest resilience to climate change and plant health risks by increasing tree species and structural diversity[11,17].	• LISS felling will continue the process of restructuring the woodland to improve structural diversity. This will include a range of approaches from strip shelterwood systems to irregular and group shelterwood systems (FP Map 06). • A wide range of appropriate tree species will be considered for restocking using Forest Research's Ecological Site Classification tool and other climate planning tools to increase species diversity and resilience to future climate change. We will follow guidance and research to implement adaptation including the acceptance of naturalised species and assisted migration[18,19]. • Consideration and further development of the use of Forest Development Types[2] (FDTs) forest will continue throughout the lifetime of this plan. A long list of site appropriate FDTs is available in Appendix 5.
Economy	• Maintain and optimise a sustainable timber supply from thinning, LISS, and site-appropriate clearfell, restocking with a diverse range of site-appropriate species and prioritising natural regeneration where achievable.	• Timber will be sustainably harvested through thinning, LISS and site-appropriate clearfell. • Species selection for restocking will use site suitable tree species selected to meet the objectives of the site. Species diversification within and between stands will be promoted to enhance the resilience of forests to future disturbances[19,20,21].

Table 4 – Eastmoors and Riccaldale Forest Plan objectives and implementation table. Note: A monitoring plan is provided in Appendix 3 showing how each plan objective will be measured.

3.0 Methodology – Forest Operations

The design concept map (FP Map 05) highlights some of the key factors to be addressed through this Forest Plan. Other Forest Plan maps show the operational plan, including Proposed Felling (FP Map 06), Management Types (FP Map 07) and Future Habitat and Restock (FP Map 08).

3.1 Felling

Table 5 - Breakdown of felling areas within the plan period (FP Map O6).

Felling	Area - hectares	% of total area (excl. SSSI)	Projected volume (m³)
Clearfell 2026 – 2031	69.3	6.4%	16846
Clearfell 2032 – 2036	79.3	7.3%	20880
Net Area to be managed under LISS	25.0	2.3%	7500
Minimum Intervention	-	-	-

3.2 Low Impact Silvicultural Systems (LISS)

A total of 435ha of Eastmoors and Riccaldale will be managed as LISS shelterwood systems. These range from strip shelterwoods to group, irregular, and uniform shelterwoods. A central goal of LISS management is to increase forest resilience to climate change and plant health risks[17,20]. By increasing diversity in forest structure and species composition, LISS management is also shown to lead to improved biodiversity outcomes[22,23]. Additionally, 108ha will be managed through long term retention and minimum intervention. Appendix 2 – LISS justification – provides a rationale for the choice of silvicultural system.

Table 5 provides a breakdown of felling areas over the period of the Forest Plan and FP Map 06 shows the distribution of felling throughout Eastmoors and Riccaldale.

A total of 25ha will receive a LISS regeneration fell over the forest plan period. All other LISS areas with trees over 25 years old will be assessed for a silvicultural thinning interventions. No more than 30% of stems within any single compartment will be removed at one time over the plan period. The associated area will be regenerated through a combination of restocking and natural regeneration.

3.3 Restocking

Conifer

Areas indicated as predominantly conifer restocking (FP Map 08) will be restocked using diverse productive conifer species informed by Forest Research's Ecological Site Classification tool. A preliminary guide to appropriate species is set out in Appendix 2.

Additionally, areas of LISS and clearfelling will be managed to encourage natural regeneration of conifer and broadleaf species, although it is accepted that replanting will be required to maintain and further diversify species.

Reference to predominantly mixed conifer on the Future Habitat and Species Map (FP Map 08) describes areas where conifer species have a target composition of at least 80% of the component mix. Appropriate levels of suitable broadleaf species via natural regeneration will be accepted. The OSA provides specific data on soils and other factors, informing the correct choice of species, on a site specific basis. All sites will aim to achieve at least 2500 stems per hectare through planting, natural regeneration, or a combination of both.

Broadleaf

Areas indicated as predominantly mixed broadleaf restocking (FP Map 08) describes areas where broadleaf species have a target composition of at least 60% of the component mix. Species selection will be informed by Forest Research's Ecological Site Classification tool, based on site conditions and levels of natural regeneration. Appropriate levels of suitable conifer natural regeneration may be accepted and up to 20% conifer planting may be undertaken to increase woodland resilience, where they do not threaten the delivery of other site objectives.

There are 263ha of Ancient Woodland within Eastmoors and Riccaldale, including 137ha of PAWS. Where conifer PAWS are clearfelled or managed through LISS regeneration felling, restocking will be carried out through a combination of natural regeneration and planting of site-native species where required.

Natural regeneration will be favoured but planting may be used when:

- Past experience, evidence or specific site factors suggest a low chance of successful regeneration.

- The mix of species needs to be diversified or enriched to meet wood production, biodiversity or resilience to climate change objectives.

- Natural regeneration is likely to be of mainly non-native species.

- Genetic diversity or quality needs to be increased or improved by introducing new provenances.

Natural regeneration of conifer species in PAWS woodland will be assessed against the risk posed to the objectives of the plan. Where dense shade-tolerant or invasive species (i.e. Western hemlock or Sitka spruce) threaten the native woodland community, it will be removed during routine forest operations. We will accept 'naturalised' species such as beech and sycamore and the principles of assisted migration where these can enhance resilience to the impacts of climate change.

Targeted enrichment planting will be considered across sites that fail to develop sufficient natural regeneration of broadleaf species. Most sites will achieve at least 1100 broadleaf stems per hectare through natural regeneration, planting or a combination of both. Where quality timber production is an appropriate objective, higher stocking densities may be utilised.

The Future Habitat and Restock map (FP Map 08) shows the distribution of restocking. Table 6 shows the expected (modelled) distribution change of habitat types by 2035 and 2055. Habitat classifications are presented according to the UK Biodiversity Action Plan definitions for broad habitats[24,25]. The figures presented in Table 6 are forecasts based on proposed felling and restocking, rather than targets or prescriptions.

Table 6 – Expected (modelled) changes to the distribution of broad habitat type 2025-2055.

Habitat type (based on principle species planted)	Area – hectares			% of total area		
	2025	2035	2055	2025	2035	2055
Broadleaved; mixed/yew woodlands	305.2	435.8	475.4	27.7%	39.6%	43.2%
Coniferous woodlands	642.8	510.7	473.8	58.4%	46.4%	43.0%
Grassland/Meadow/Arable	131.8	132.1	130.3	12.0%	12.0%	11.8%
Heathland	18.3	19.6	18.7	1.7%	1.8%	1.7%
Built up areas & gardens	3.0	3.0	3.0	0.3%	0.3%	0.3%

Table 7 – UKWAS Compliance Table.

	Forest Plan Area (ha)	Forest Plan % of area	District Area (ha)	District % of Area
Total Area of Land Management Plan	1100.7	100	21082.4	100
Area of Felling (within Plan period)	0	0	884.5	4.2
Area of Open Space	67.9	6.2	2658.7	12.6
Area of Primary Species	225.3	20.5	4302.6	20.4
Total Area of Certified Estate	971.5	88.3	20446.2	97
Area of Natural Reserve	0	0	395.2	1.9
Areas of Long Term Retention and/or areas managed under LISS and/or Minimum Intervention	542.9	55.9	10785.2	52.7
Area of land managed for conservation as a priority	295.8	30.4	4045.3	19.8
Area of Semi-Natural Habitat	134.5	13.8	2105.9	10.3

4.0 Monitoring

A detailed monitoring plan is provided in Appendix 3. This plan outlines how we will monitor delivery against the forest plan objectives, operational implementation, and forest certification.

4.1 Forest Plan Monitoring

All forest plans are formally reviewed at year 5 ('mid-term review') and year 10. At each review, the plan is assessed against its objectives. This plan will be formally reviewed in 2031 with the opportunity to share information where requested. This period may be shortened if circumstances change significantly or if parts of the plan prove detrimental to the overall aims and objectives.

Where an amendment to the Forest Plan is required, the Forestry Commission Practice Delivery Note 01 – Tolerance Table will be applied as set out in Appendix 4.

4.2 UKWAS Compliance Table

We will maintain the land within our stewardship certified against the UK Woodland Assurance Standard, as independently assessed by independent surveillance audits.

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Appendices

Appendix 1 – Priority species

Bird Species [1/3]	Forest location	Habitat enhancement
Redstart, Song Thrush, Yellow hammer, turtle dove, marsh tit, bullfinch, dunnock, woodcock, spotted flycatcher	Woodland edge, ride, glades and well developed shrub layer	Continue selective thinning and regeneration felling as part of LISS management, this will create increased structural and species diversity. Maintain wide rides to increase habitat connectivity and food resource and enable the development of woodland 'edge habitat' as planted trees mature. Create and maintain successional woodland (birch and oak)/scrub habitat and standing deadwood through forest operations and selective thinning as part of LISS management.
Owl and raptor sp. (inc. Sch1)	Forest wide	Maintain diversity of habitats with a mosaic of open and wooded and wetland habitats to ensure diversity of prey species available. In consultation with species specialists, maintain continuity of mature conifer woodland habitat suitable for nest sites.
Night Jar	Clearfell	Maintain continuity of clearfell sites and young woodland habitat suitable for nest sites and food resource.
Cross bill, firecrest(Sch1)	Mature conifer	Maintain continuity of mature conifer woodland habitat suitable for nest sites and food resource.
Mammals	Forest location	Habitat enhancement
Otter	Riparian areas	Create and maintain open/ broadleaf riparian habitat along riparian corridors with scrub areas to provide cover and structure.
Lepidoptera[2]	Forest location	Habitat enhancement
Notable/local sp inc. Beautiful Snout, Golden-rod Brindle, Heath Rustic, Green Hairstreak	Heathland areas	Maintain current habitat in favourable condition through vegetation management as necessary. Work through OSA process to ensure minimal disturbance to existing habitat during operations and highlight opportunities to extend and connect habitats where appropriate.
Notable/local Moth sp inc. Angle striped sallow, Scallop Shell, Blue-bordered Carpet	Broad- leaved woodland – particularly birch	Continue selective thinning and regeneration felling as part of LISS management, this will create increased structural and species diversity. Maintain wide rides to increase habitat connectivity and food resource and enable the development of woodland 'edge habitat' as planted trees mature. Create and maintain successional woodland (birch and oak)
Plants[2/3]	Forest location	Habitat enhancement
Sphagnum sp. Round leaved Sundew. Marsh Lousewort	Wet heathland sites, ditches.	Maintain current habitat in favourable condition through vegetation management as necessary. Work through OSA process to ensure minimal disturbance to existing habitat during operations and highlight opportunities to extend and connect habitats through forest operations where appropriate.
Species rich Unimproved neutral grassland	Snapers farm meadows and road verges and rides	Work with tenant and Natural England to maintain favourable condition of SSSI. Create and maintain wide rides throughout the block through thinning interventions to increase habitat availability and connectivity where appropriate through forest operations and selective thinning as part of LISS management.

Insects[4]	Forest location	Habitat enhancement
Northern Hairy Wood ant	Forest road margins, rides and glades	Maintain current habitat in favourable condition. Work through OSA process to ensure minimal disturbance to existing habitat during operations and highlight opportunities to extend and connect habitats through forest operations where appropriate.
Reptiles[2]	Forest location	Habitat enhancement
Adder	Forest road margins, rides and glades, open heath	Maintain current habitat in favourable condition. Work through OSA process to ensure minimal disturbance to existing habitat during operations and highlight opportunities to extend and connect habitats through forest operations where appropriate.

[1] Forest bird study group, [2] Forest Volunteers (species specialists), [3] NBN Atlas/ North and East Yorkshire Ecological data centre [4] University of York

Appendix 2 – LISS justification – Eastmoors & Riccaldale

Low Impact Silvicultural Systems are prescribed in this Forest Plan as important management interventions that will help to deliver the a number of the plan's objectives.

Stand Appraisal

Stand form – overall stand form across most conifer species is average-to-good and developing, but more variable across broadleaf species.

Thinning history – Regular thinning has been carried out across the majority of broadleaf and conifer stands where justified. Most stands are suitably thinned for LISS to be applied. There is generally good evidence that a range of species are capable of developing through natural regeneration across sites, although light levels, ground cover and deer damage will need to be monitored.

The impact from P.ramorum, *D.septosporum, D.micans* and *Chalara* on larch, pine, spruce and ash species will need to be monitored as to how this might impact on future stand composition, depending on what the management objectives are for those sites.

Access – internal forest access for forest operations is generally good. However there are areas of inaccessible or steep ground where thinning and LISS management is more difficult or unviable.

Site Factor	Suitability Score	Comment
Wind Hazard Classification: Majority of the forest is WHC range 1 - 3	1	Well-thinned stands with typically deep rooting soils. Forest Research's ForestGales software to be used in operational planning to assess wind risk.
Soil fertility: Very poor to medium	2	ESC modelled soil nutrient regime ranging from 'poor' to medium, with small pockets of 'rich'. 'Medium' used in analysis.
Current species suitability: SP, CP, LP, WH, Larch, WRC, SS, SBI, PBI, SY, AH, POK, SOK	1-3	Using modelled soil moisture regime (moist) and 'medium' soil nutrient regime. Advanced natural regeneration occurs across a range broadleaf and conifer species. Understory developing where light levels are suitable.

On the basis of the above information, we will continue to implement LISS in Eastmoors & Riccaldale with the aim of increasing species diversity using a range of species depending on site objectives. Shelterwood systems will be applied to a range of stand types where the LISS felling will contribute toward the development of more resilient, diverse woodland stands.

Future wildlife management issues may arise where deer browsing could impact Shelterwood systems as more palatable species are introduced. Site monitoring and adherence to the District Deer Management strategy will help inform future management.

Ecological Site Classification Report

Eastings(m)	Northings(m)	Grid Reference	Climate Scenario	Site Class	Filter	Brash	Drainage	Fertiliser/Nurse
459188	490558	SE591905	Medium-High 2050 (A1b/3q0) AWC method	Warm - Sheltered - Moist	Suitable conifers only	No brash present	No drainage installed	No fertiliser

Site Description and Variables

The site has a warm, sheltered and moist climate. The soils are moist moisture status and poor nutrient status. The analysis assumes that site management (e.g. CCF), the use of deep rooting species and/or soil properties will help mitigate climatic moisture deficits. Tree species recommendations in ESC do not take account of each countries regulatory approval process, so prior to including species in a forest plan advice should be sought from relevant forestry authorities.

Modifications	AT	CT	DAMS	MD	SMR	SNR
Default	2047.0	8.0	11.0	165.0	4.0(Moist)	2.0(Poor)
Final	2047.0	8.0	11.0	165.0	4.0(Moist)	2.0(Poor)

Species	Abbr.	Suit(Ecol)	Suit(Timber)	Yield	Limiting	AT	CT	DAMS	MD	SMR	SNR	Version
Corsican pine	CP	●	●	16	SNR	●	●	●	●	●	●	3.3(A)
Lodgepole pine	LP	●	●	12	SNR	●	●	●	●	●	●	3.1(A)
Macedonian pine	MCP	●	●	12	SNR	●	●	●	●	●	●	3.1(C)
Maritime pine	MAP	◉	◉	10	SMR	●	●	●	●	◉	●	3.1(C)
Monterey/Radiata pine	RAP	●	●	16	SMR	●	●	●	●	●	●	3(C)
Scots pine	SP	●	●	12	SNR	●	●	●	●	●	●	3.3(A)
Norway spruce	NS	◉	◉	17	SNR	●	●	●	●	●	◉	3.3(A)
Oriental spruce	ORS	◉	◉	13	SNR	●	●	●	●	●	◉	3(C)
Serbian spruce	OMS	◉	◉	13	SNR	●	●	●	●	●	◉	3(B)
Sitka spruce	SS	◉	◉	20	SNR	●	●	●	●	●	●	3.4(A)
Sitka spruce (Imp.)	Imp.SS	◉	◉	22	SNR	●	●	●	●	●	◉	3.4(A)
Douglas fir	DF	◉	◉	18	SMR	●	●	●	●	◉	◉	3.1(A)
Hybrid larch	HL	●	◉	12	SNR	●	●	●	●	●	●	3(A)
Japanese larch	JL	●	●	11	AT5	●	●	●	●	●	●	3(A)
European larch	EL	◉	◉	8	SNR	●	●	●	●	◉	◉	3(A)
Western red cedar	RC	◉	◉	16	SNR	●	●	●	●	●	◉	3.1(A)
Japanese red cedar	JCR	◉	◉	16	SNR	●	●	●	●	●	◉	3(B)
European silver fir	ESF	◉	◉	15	SNR	●	●	●	●	●	◉	3(B)
Grand fir	GF	◉	◉	20	SNR	●	●	●	●	●	◉	3(A)
Noble Fir	NF	◉	▲	12	AT5	◉	●	●	●	●	◉	3(A)
Nordmann fir	NMF	◉	◉	14	SNR	●	●	●	●	●	◉	3(C)
Pacific fir	PSF	●	●	22	CT	●	●	●	●	●	●	3.4(C)

Ecological Site Classification Report													
Leyland cypress	LEC	●	●	17	SNR	●	●	●	●	●	●	3(B)
Western hemlock	WH	●	●	20	CT	●	●	●	●	●	●	3(A)
Coast redwood	RSQ	●	●	17	SNR	●	●	●	●	●	●	3(B)
Lawson's cypress	LC	●	●	15	SNR	●	●	●	●	●	●	3(B)

Ecological Site Classification Report

Eastings(m)	Northings(m)	Grid Reference	Climate Scenario	Site Class	Filter	Brash	Drainage	Fertiliser/Nurse
459188	490558	SE591905	Medium-High 2050 (A1b/3q0) AWC method	Warm - Sheltered - Moist	Suitable broadleaves only	No brash present	No drainage installed	No fertiliser

Site Description and Variables

The site has a warm, sheltered and moist climate. The soils are moist moisture status and poor nutrient status. The analysis assumes that site management (e.g. CCF), the use of deep rooting species and/or soil properties will help mitigate climatic moisture deficits. Tree species recommendations in ESC do not take account of each countries regulatory approval process, so prior to including species in a forest plan advice should be sought from relevant forestry authorities.

Modifications	AT	CT	DAMS	MD	SMR	SNR
Default	2047.0	8.0	11.0	165.0	4.0(Moist)	2.0(Poor)
Final	2047.0	8.0	11.0	165.0	4.0(Moist)	2.0(Poor)

Species	Abbr.	Suit(Ecol)	Suit(Timber)	Yield	Limiting	AT	CT	DAMS	MD	SMR	SNR	Version
Downy birch	PBI	●	●	6	AT5	●	●	●	●	●	●	3.2(A)
Silver birch	SBI	●	●	9	SNR	●	●	●	●	●	●	3.2(A)
Big leaf maple	AMA	○	○	8	CT	●	○	●	●	●	○	3.1(C)
Norway maple	NOM	○	○	7	SNR	●	●	●	●	●	○	3(B)
Sycamore	SY	○	○	7	SNR	●	●	●	●	●	○	3.3(A)
Beech	BE	○	○	7	SNR	●	●	●	●	●	○	3.1(A)
Roble beech	RON	○	○	14	SNR	●	●	●	●	●	○	3.1(B)
Pedunculate oak	POK	○	○	5	SNR	●	●	●	●	●	○	3.1(A)
Red oak	ROK	○	○	5	SNR	●	●	●	●	●	○	3(B)
Sessile oak	SOK	○	○	6	SNR	●	●	●	●	●	○	3.2(A)
Aspen	ASP	○	○	7	SNR	●	●	●	●	●	○	3.2(A)
Rauli beech	RAN	●	●	20	AT5	●	●	●	●	●	●	3.1(B)
Common alder	CAR	○	○	7	SNR	●	●	●	●	●	○	3.2(A)
Red alder	RAR	●	●	10	SNR	●	●	●	●	●	●	3(B)
Grey alder	GAR	●	●	12	SNR	●	●	●	●	●	●	3.1(B)
Italian alder	IAR	○	○	8	CT	●	○	●	●	●	●	3.2(B)
Shining gum	ENI	●	●	36	SNR	●	●	●	●	●	●	3(C)
Cider gum	EGU	●	●	21	SNR	●	●	●	●	●	●	3(C)
Rowan	ROW	●	●	3	SNR	●	●	●	●	●	●	3.3(A)
True service tree	TST	○	○	5	SNR	●	●	●	●	○	○	3(A)
Wild service tree	WST	○	○	6	SMR	●	●	●	●	○	○	3(A)
Hornbeam	HBM	○	○	7	SNR	●	●	●	●	●	○	3(A)

Ecological Site Classification Report													
Wild cherry	WCH	🟢	🟢	7	SNR	🟢	🟢	🟢	🟢	🟢	🟢	3(A)
Sweet chestnut	SC	🟢	🟢	8	SNR	🟢	🟢	🟢	🟢	🟢	🟢	3(A)
Holly	HOL	🟢	🟢	3	SNR	🟢	🟢	🟢	🟢	🟢	🟢	3(C)
Eucalyptus glaucescens (SRF)	SRF	🟢	🟢	14	SNR	🟢	🟢	🟢	🟢	🟢	🟢	3(C)

Appendix 3 – Eastmoors and Riccaldale Monitoring Plan			
Objective	**Monitoring Method**	**Frequency/Timings**	**Actions**
Wildlife			
Continue the restoration of Plantation on Ancient Wood Sites, aiming to elevate the semi-natural score of these sites by at least one class by 2044, moving them towards a more dominant native canopy and a richer, more natural woodland environment.	Semi-natural scores updated with inventory data and used to measure progress of PAWS restoration as per Forestry England's PAWS policy.	At plan renewal, mid-term review and 10-year review, and when data from other monitoring becomes available.	Update Forester Web GIS sub-compartment database. If required, modify LISS prescriptions (including felling and restocking) to achieve objective for PAWS restoration.
	Ancient Woodland Condition Assessment to survey ground flora, NVC and tree inventory (including canopy cover).	Decadal, where funding is available. Previous survey in 2025.	Utilise the next ancient woodland condition assessment and incorporate into mid-term review.
Improve soil health and nutrient cycling by reducing soil damage and supporting populations health of Northern Hairy Wood ant (Formica lugubris).	Monitored utilising eDNA analysis with representation across management types.	Aim to design and conduct survey in year 1 (2026) and year 5 (2031-32). Dependent on funding.	Agree suitable survey design with academic partner. Conduct eDNA sampling.
	Wood ant population health survey	Year 0, Year 10	Operational planning used to protect known sites and to connect or buffer surrounding habitats.
People			
Maintain and enhance the contribution of Eastmoors and Riccaldale to the Central Limestone Hills and Moorland Dales Landscape Character Area through the design and delivery of LISS and clearfell forest operations.	Visual assessment utilising fixed-point photography.	Year 0 baseline, 5-year review, 10-year review.	Review visual impact of coupes within the landscape and adjust future coupe shapes if necessary.
Climate			
Improve forest resilience to climate change and plant health risks by increasing tree species and structural diversity.	Tree species diversity will be measured using the Shannon Index which accounts for the number and relative abundance of species. Structural diversity will be measured using age class distribution. Both measures will be taken at the scale of the forest block (across Eastmoors and Riccaldale).	Year 0 plan renewal, mid-term review, 10-year review.	Update sub-compartment database following operations. At 5-year review, take action to understand and correct delivery if increases in tree species and structural diversity is not occurring.
Economy			
All of our forests and woodlands are certified to the Forest Stewardship Council®(FSC®) licence code FSC-C123214 and the Programme for the Endorsement of Forest Certification (PEFC)	Independent surveillance audit across the organisation.	Annually	Implement corrective actions as required.

licence code PEFC/16-40-1001 standards. We will maintain the land within our stewardship certified against the UK Woodland Assurance Standard.	Independent surveillance audit across the District.	As per audit sample.	Implement corrective actions as required.
Maintain and optimise a sustainable timber supply from thinning, LISS, and site-appropriate clearfell, restocking with a diverse range of site-appropriate species and prioritising natural regeneration where achievable.	Update Forester Web GIS; sub-compartment database, Operational Thinning Layer, Management Coupe Layer.	Following forest operations and at End Of Year updates. Year 0 plan renewal, mid-term review, 10-year review.	Review long-term changes in productive capacity through the Production Forecast at the point of plan renewal and across the wider District.
Operational			
Clearfell coupes - ensure boundaries are accurately reproduced and within agreed tolerances as set out in Forestry Commission Practice Delivery Note 01 (FC PDN 01).	GPS unit or equivalent data recorders.	Upon completion of all harvesting activity.	If significant coupe variation, apply for appropriate amendment to FC as required as per FC PDN 01 prior to felling. Update Forester Web for completed clearfells.
Restock & Future Habitat Coupes - Productive mixed conifer sites. Establish at least 2500 conifer stems per ha by planting and natural regeneration by year 5 since date of initial planting (allowing 2 years fallow for hylobius).	On-site stocking density plot surveys.	Beat-up surveys between years 1 to 4. Year 5 stocking assessment, internal guidance PPG4.	Carry out beating up where stocking density falls below prescribed number of trees/ha to achieve full stocking.
Restock & Future Habitat Coupes - Mixed broadleaf habitat. Establish at least 1100 broadleaf stems per ha through natural regeneration by year 10 since date of felling.	On-site stocking density plot surveys.	Beat-up surveys between years 1 to 4. Year 5 stocking assessment, internal guidance PPG4.	Carry out enrichment planting where stocking density falls below prescribed number of trees/ha to achieve full stocking.
Wildlife management - Identify problem sites where mammal damage is affecting crop establishment or degrading woodland flora.	On-site stocking density plot surveys. Damage, Impact and Activity Assessments as set out in YFD Deer Management Strategy.	To be informed from results of beat-up surveys between years 1 to 4 and year 5 stocking assessment, internal guidance PPG4.	Target deer control in line with District strategy.
Operational planning and delivery	Review sample of Operational Site Assessments.	Annually (across Yorkshire Forest District).	Provide feedback where management is not compliant with recommendations.
Forest Plan specific			
Ensure the plan's objectives are being met and implementation is being delivered.	Utilise this monitoring plan and conduct a mid-term and 10-year review.	At mid-term review in 2031 and 10-year review in 2036.	Take corrective action or modify the plans aims and/or objectives where these are no longer compatible with National or District Policy. Significant plan changes will require consultation and formal amendment from the Forestry Commission.

Appendix 4 – Agreed Tolerance Table

	Adjustment to felling coupe boundaries	Swapping of felling coupes	Adjustment to felling operation	Clearance of standing trees associated with wind-blown areas[7]	Delayed restocking – including natural regeneration	Species choice	Tree health
Formal assessment and approval by FC area team required	>25% of the coupe area	Where changes to the felling sequence is likely to result in a significant breach[1] of the UKFS adjacency rules	From unconditional felling (thinning or low-intervention management) to conditional felling such as: • regeneration felling • strip felling[2] • clear felling and where ≥50% of standing tree volume is to be removed	Individual work area that is either: >5ha of standing trees associated with wind-blow areas or Proposals result in cumulative additional felling[8] affecting >20% of the Forest Plan area[9]	N/A – dealt with via FC Area team approval (below)	From mixed, predominantly broadleaves to predominantly conifer	Where no SPHN is issued but felling of ≥65% standing tree volume is required in response to a plant health issue
Written approval only required from FC area team[3]	Between 10-25% of the coupe area	Where changes to the felling sequence is likely to result in a minor breach[4] of the UKFS adjacency rules	From unconditional felling (thinning or low-intervention management) to conditional felling where between 30%-50% of standing tree volume is to be removed such as: • regeneration felling • strip felling or From lower intensity regeneration felling to higher intensity regeneration felling, (as defined by the felling operation hierarchy[5]) where <50% of standing tree volume is to be removed	Individual work area that meets both the criteria: 1-5ha of standing trees associated with wind-blow areas, (Where there is an <u>immediate</u> and <u>significant</u> risk to health and safety or access, felling of ≥5ha of standing trees associated with wind-blow areas) and Proposals result in cumulative additional felling[8] affecting <20% of the Forest Plan area[9]	<u>Planting:</u> Where this is ≥ 4 planting seasons from the date of felling. <u>Natural regeneration:</u> where necessary intervention to secure natural regen is not implemented within 4 full planting seasons from date of felling	Deciduous conifers to predominantly evergreen conifers	Where no SPHN is issued but felling between ≥50% and < 65% of standing tree volume is required in response to a plant health issue
No formal or written approval by FC area team required[6]	< 10% of the coupe area	Where changes to the felling sequence does not result in a breach of the UKFS adjacency rules	Clear felling to strip felling, shelterwood or regenerative felling systems, or thinning or From more severe regeneration felling to less severe regeneration felling as defined by the regeneration felling hierarchy[5]	<1ha of standing trees associated with wind-blow areas (Where there is an <u>immediate</u> and <u>significant</u> risk to health and safety or access, felling of 1ha-5ha of standing trees associated with wind-blow areas) and Proposals result in cumulative additional felling[8] affecting <10% of the Forest Plan area[9]	For any changes to the timing of restocking where this occurs <4 full planting seasons from the date of felling	Any other changes	Where an SPHN is issued Or Thinning / regenerative felling <50% of standing tree volume is required in response to a plant health issue

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[9] For Yorkshire Forest District the "Forest Plan Area" will be utilized rather than "Forest Management Unit" when considering cumulative impact.

[1] Greater than 20% of the coupe boundary

[2] Felling strips with a width ≤ 1.5 x treelengths, with a length appropriate to site constraints.

[3] Approval letter retained for compliance inspection purposes.

[4] 20% or less of the coupe boundary

[5] Lower impact operation to higher impact operation hierarchy: thinning, selection system, uniform shelterwood, irregular shelterwood, group shelterwood, strip felling, clear felling.

[6] District must keep all **assessment and decision-making** records in respect of amendments for **audit purposes** and compliance inspections

[7] Operations remain subject to other approvals for sensitive areas (e.g. SSSI, SAM etc). Subject to agreement of this tolerance table by relevant protected landscapes.

[8] Cumulative additional felling = 5 year rolling total area of growing trees felled (excludes dead and completely windblown trees) that were not approved for felling within the relevant felling period, in the initial approved Forest Plan. This includes both FS approved amendments and felling below thresholds. The intention is to identify instances where events result in more substantial shift in management requiring increasing need for review of forest plan proposals.
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Appendix 5 – Forest Development Types – Long List

"A Forest Development Type is a long-term vision of how the species composition and structure of a forest stand is intended to develop. The concept encourages the greater use of mixed-species stands and a wider variety of stand structure than previously deployed in British forests".

The table below lists a range of FDT's that are provisionally suitable at one or more locations at Eastmoors and Riccaldale, based on Forest Research's Ecological Site Classification tool. FDT selection will be tailored to site-specific soil moisture and nutrient regimes, as well as stand and forest-level management objectives. This list has been filtered to contain only those FDTs that are suitable for the future modelled climate in 2080.

Code	Description	Future Climate 2050	2080	Future Climate (AWC) 2050	2080	Primary Species	Primary Proportion	Secondary Species	Secondary Proportion	Even aged Unthinned	Thinned	Uneven aged Simple	Complex	Flashcard
1.2.1	Norway spruce even aged	Suitable	Suitable	Suitable	Suitable	NS	90-100			x	x*			FDT_1_2_1_NS_V1.pdf
1.2.2	Norway spruce uneven aged	Suitable	Suitable	Suitable	Suitable	NS	80-90					x*	x	FDT_1_2_2_NS_V1.pdf
1.2.4	Norway spruce with shade tolerant conifers	Suitable	Suitable	Suitable	Suitable	NS	60-80	XCST	20-40	x	x	x*	x	FDT_1_2_4_NS_and_XCST_V1.pdf
1.2.5	Norway spruce with beech	Suitable	Suitable	Suitable	Suitable	NS	50-70	BE	20-40		x	x	x*	FDT_1_2_5_NS_and_BE_V1.pdf
1.2.6	Norway spruce with long lived broadleaves	Suitable	Suitable	Suitable	Suitable	NS	60-80	XBLL	20-40		x	x*	x	FDT_1_2_6_NS_and_XBLL_V1.pdf
1.2.7	Norway spruce with short lived broadleaves	Suitable	Suitable	Suitable	Suitable	NS	70-90	XBSL	Oct-30	x	x*			FDT_1_2_7_NS_and_XBSL_V1.pdf
2.2.1	Corsican pine with shade tolerant conifers	Suitable	Suitable	Suitable	Suitable	CP	30-70	XCST	30-70			x*		FDT_2_2_1_CP_and_XCST_V1.pdf
2.2.2	Corsican pine with light demanding conifers	Suitable	Suitable	Suitable	Suitable	CP	30-70	XCLD	30-70		x*	x	x	FDT_2_2_2_CP_and_XCLD_V1.pdf
2.2.3	Corsican pine with long lived broadleaves	Suitable	Suitable	Suitable	Suitable	CP	30-70	XBLL	30-70			x*		FDT_2_2_3_CP_and_XBLL_V1.pdf
2.4.1	Larch with Scots pine	Suitable	Suitable	Suitable	Suitable	LA	60-90	SP	Oct-40		x*			FDT_2_4_1_LA_and_SP_V1.pdf
2.4.2	Larch with shade tolerant conifers	Suitable	Suitable	Suitable	Suitable	LA	60-80	XCST	20-40			x*	x	FDT_2_4_2_LA_and_XCST_V1.pdf
2.4.3	Larch with beech	Suitable	Suitable	Suitable	Suitable	LA	50-80	BE	Oct-40			x*		FDT_2_4_3_LA_and_BE_V1.pdf
2.4.4	Larch with oak	Suitable	Suitable	Suitable	Suitable	LA	50-70	OK	20-40				x*	FDT_2_4_4_LA_and_OK_V1.pdf

| Ref	Description					Code	Range	Code2	Range2					File
3.2.3	Pacific North-West American (PNWA) firs and XCST	Suitable	Suitable	Suitable	Suitable		60-80	XCST	20-40		x	x	x*	FDT_3_2_3_PNWA_firs_and_XCST.pdf
5.1.1	pedunculate oak with hornbeam	Suitable	Suitable	Suitable	Suitable	POK	70-90	HBM	Oct-30			x*	x	FDT_5_1_1_POK_and_HBM_V1.pdf
5.3.1	oak with beech	Suitable	Suitable	Suitable	Suitable	OK	60-80	BE	20-40			x*	x	FDT_5_3_1_OK_and_BE_V1.pdf
5.3.2	oak with long lived broadleaves	Suitable	Suitable	Suitable	Suitable	OK	50-70	XBLL	30-50			x	x*	FDT_5_3_2_OK_and_XBLL_V1.pdf
5.3.3	oak with hazel	Suitable	Suitable	Suitable	Suitable	OK	80-100	HAZ	abundant coppice			x*		FDT_5_3_3_OK_(XBLL)_and_HAZ_V1.pdf
6.1.3	beech with shade tolerant conifers	Suitable	Suitable	Suitable	Suitable	BE	50-70	XCST	30-50			x	x*	FDT_6_1_3_BE_and_XCST_V1.pdf
6.1.4	beech with long lived broadleaves	Suitable	Suitable	Suitable	Suitable	BE	50-70	XBLL	30-50			x	x*	FDT_6_1_4_BE_and_XBLL_V1.pdf
7.1.1	birch even aged	Suitable	Suitable	Suitable	Suitable	BI	70-100			x	x*			FDT_7_1_1_BI_V1.pdf
7.1.2	birch and short lived broadleaves	Suitable	Suitable	Suitable	Suitable	BI	50-70	XBSL	30-50	x	x*			FDT_7_1_2_BI_and_XBSL_V1.pdf
8.3.1	sycamore	Suitable	Suitable	Suitable	Suitable	SY	80-100				x	x*	x	FDT_8_3_1_SY_V1.pdf
8.3.2	sycamore with long lived broadleaves	Suitable	Suitable	Suitable	Suitable	SY	50-70	XBLL	30-50			x	x*	FDT_8_3_2_SY_and_XBLL_V1.pdf
8.4.1	lime with long lived broadleaves	Suitable	Suitable	Suitable	Suitable	LI	50-70	XBLL	30-50			x	x*	FDT_8_4_1_LI_and_XBLL.pdf
9.1.1	common alder	Suitable	Suitable	Suitable	Suitable	CAR	80-100				x*			FDT_9_1_1_CAR_V1.pdf
2.1.7	Scots pine with birch	Suitable	Suitable	Suitable	Suitable	SP	60-90	SBI	Oct-40		x	x	x*	FDT_2_1_7_SP_and_BI_V1.pdf
7.2.1	silver birch and Scots pine	Suitable	Suitable	Suitable	Suitable	SBI	60-90	SP	Oct-40		x	x*	x	FDT_7_2_1_SBI_and_SP_V1.pdf
10.1.1	Peat edge woodland (PEW)	Suitable	Suitable	Suitable	Suitable	XBSL	80-100			x				FDT_10_1_1_PEW.pdf
2.1.1	Scots pine even aged	Suitable	Suitable	Suitable	Suitable	SP	80-100			x	x*			FDT_2_1_1_SP_V1.pdf
2.1.2	Scots pine uneven aged	Suitable	Suitable	Suitable	Suitable	SP	70-90				x	x*	x	FDT_2_1_2_SP_V1.pdf

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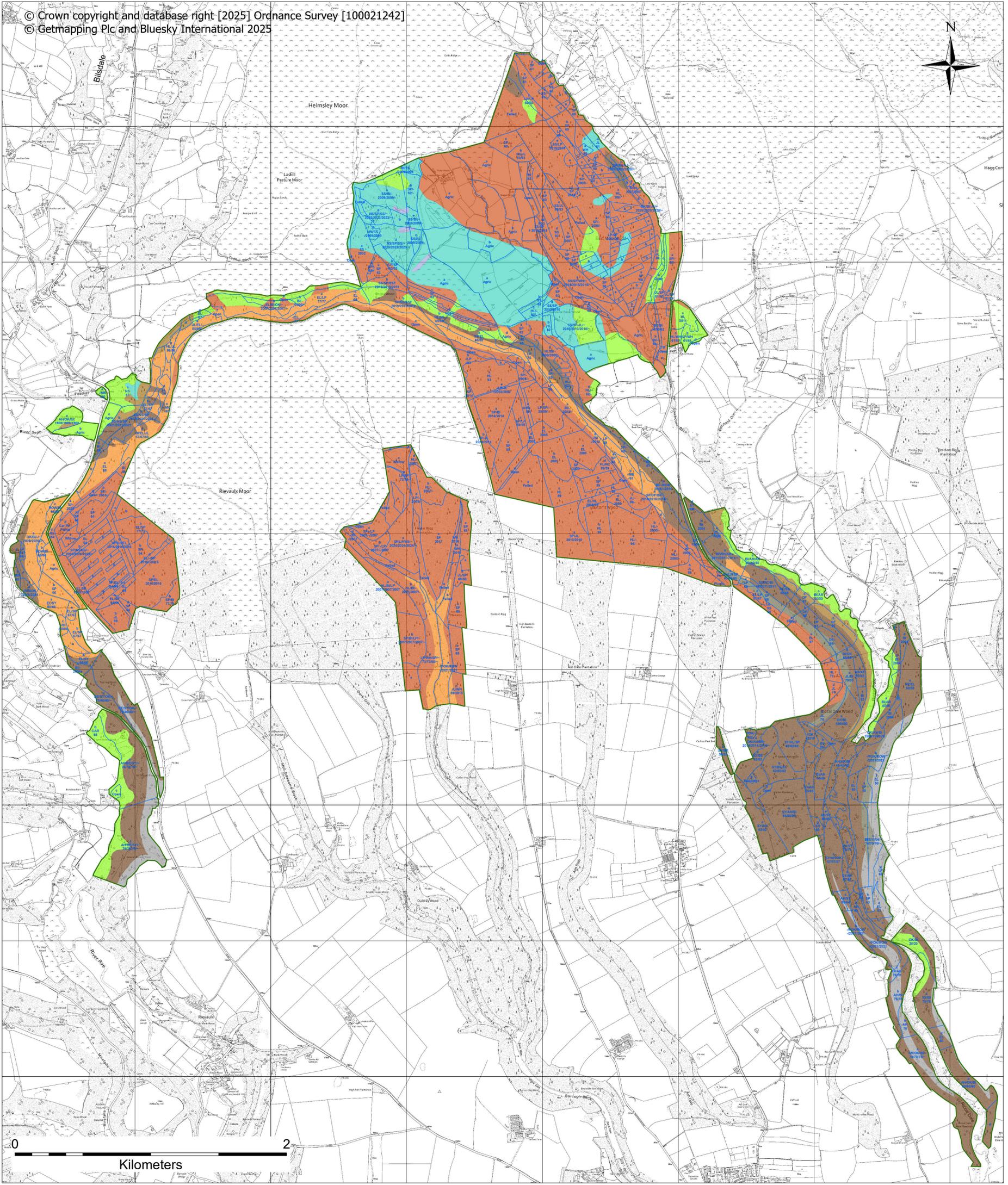
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Eastmoor and Riccaldale Forest Plan

Map 01 - Soils

Created: March 2025
Scale: 1:10,000
Scale at A0

0 — Kilometers — 2

	Soil Type		Soil Type
■	Typical Brown Earth	■	Typical Surface-Water Gley
■	Podzolic Brown Earth	■	Podzolic Surface-Water Gley
■	Typical Podzol	■	Calluna, Eriophorum vaginatum Blanket Bog
■	Typical Ironpan Soil	■	Rendzina
■	Podzolic Ironpan Soil	■	Calcareous Brown Earth
■	Typical Ground-Water Gley	■	Scree
■	Typical Peaty Surface-Water Gley	▦	Not Surveyed
■	Podzolic Peaty Surface-Water Gley		

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Kilometers

Forestry England
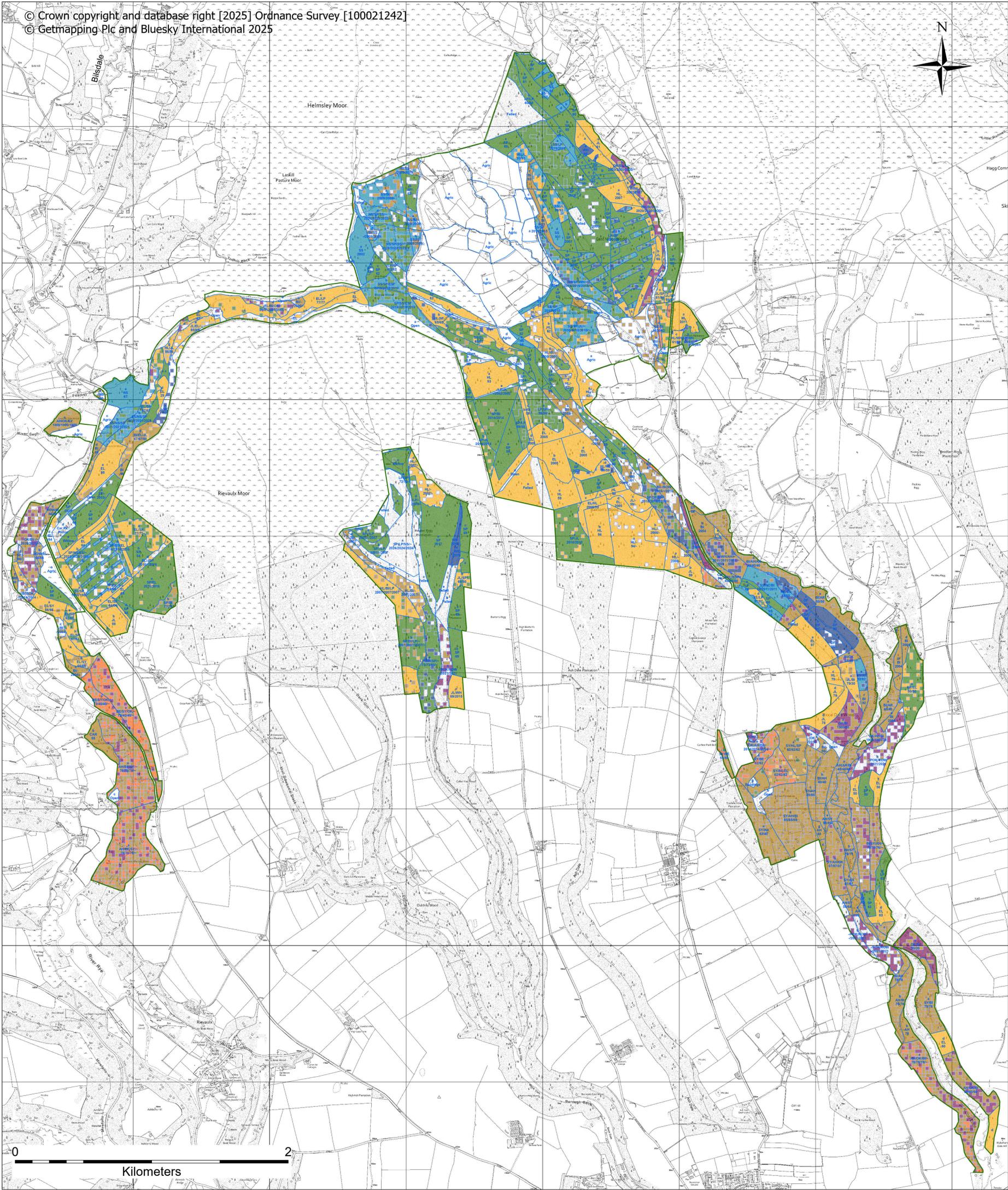
Eastmoor and Riccaldale Forest Plan

Map 02 - Current Species

Created: March 2025
Scale: 1:10,000
Scale at A0

- Beeches
- Larches
- Oaks
- Other Broadleaves
- Other Conifers
- Pines
- Spruces
- No Species

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Forestry England
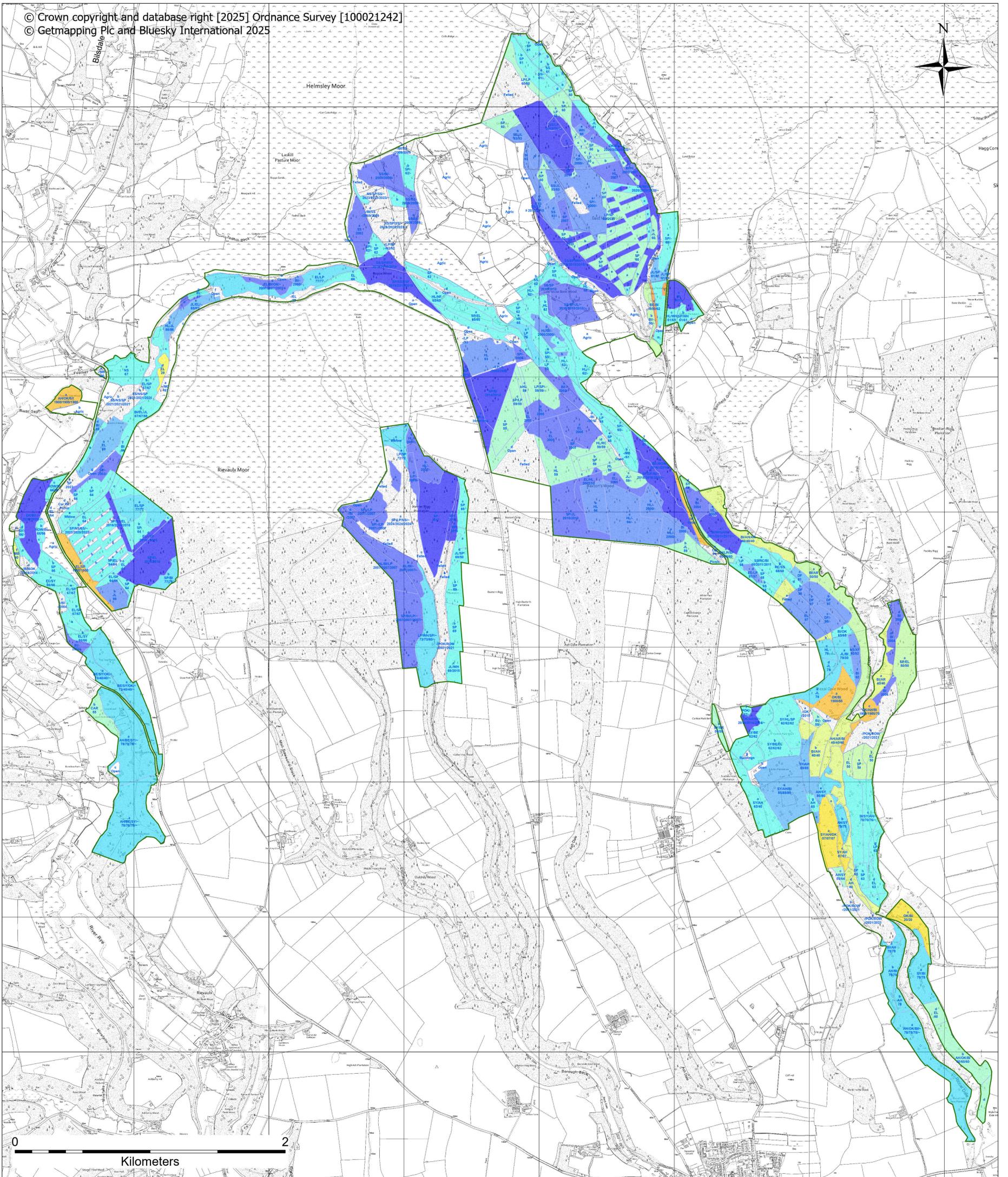
Eastmoor and Riccaldale Forest Plan

Map 03 - Age Class

Created: March 2025
Scale: 1:10,000
Scale at A0

■ Pre 1700		■ 1951 – 1960	
■ 1701 – 1800		■ 1961 – 1970	
■ 1801 – 1850		■ 1971 – 1980	
■ 1851 – 1900		■ 1981 – 1990	
■ 1901 – 1920		■ 1991 – 2000	
■ 1921 – 1930		■ 2001 – 2010	
■ 1931 – 1940		■ 2011 – 2020	
■ 1941 – 1950			

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Kilometers

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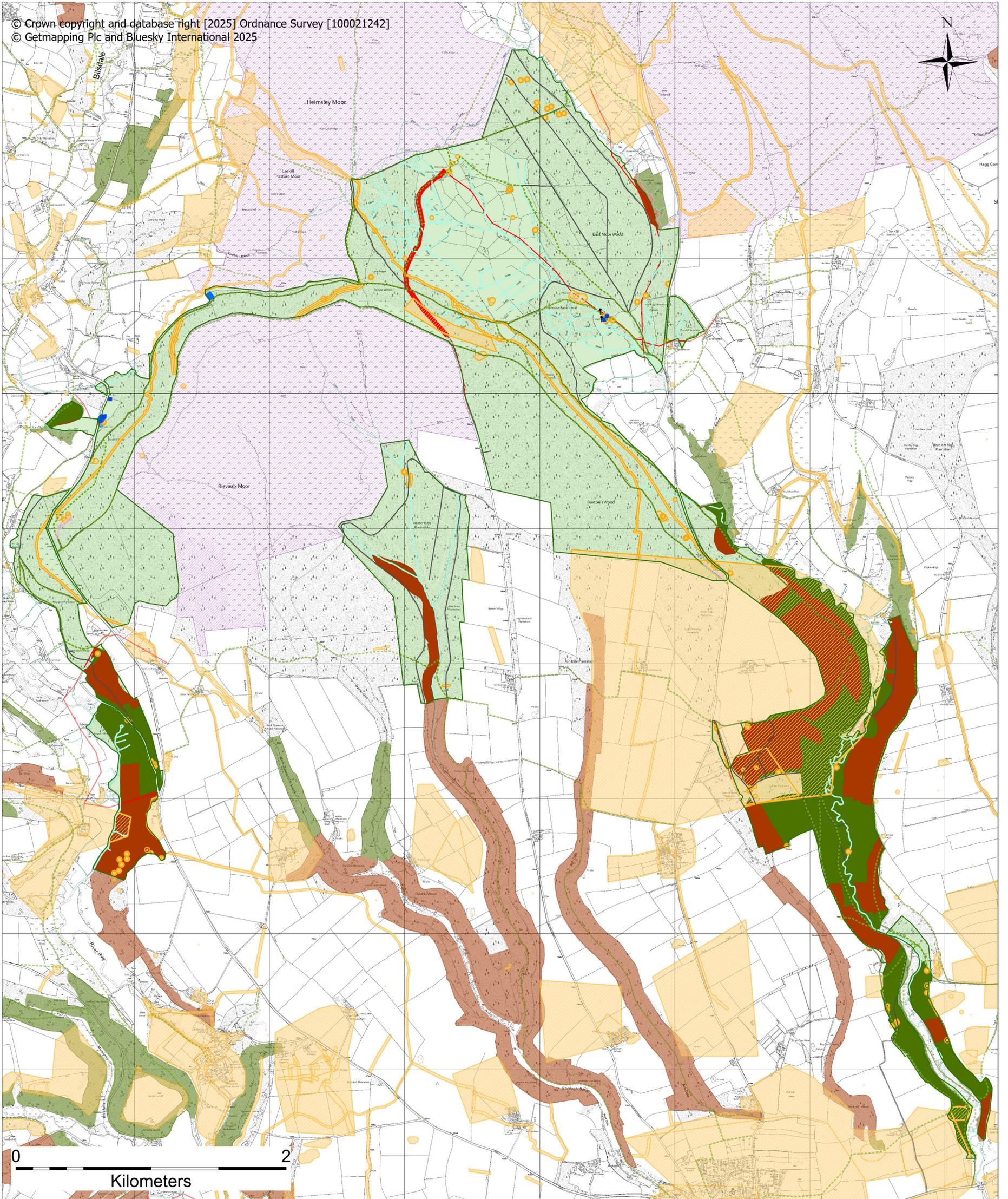
Eastmoor and Riccaldale Forest Plan

Map 04 - Management Information

Created: June 2025
Scale:1:10,000
Scale at A0

---- Public Rights of Way
—— Forest Roads
  ᛏ Masts Aerials
  ▪ Water Supply Points
▬ Water Pipelines
—— Overhead powerline
---- Underground powerline
▬ Overhead telephone or fibreoptic
---- Underground telephone or fibreoptic

---- Underground telephone or fibreoptic
—— Watercourses
▦ Heritage Impact Zones
▢ Heritage
▨ Special Protection Areas
■ Ancient & Semi-Natural Woodland
■ Ancient Replanted Woodland
■ Car Parks

Sustainable timber production outside of ancient woodland areas is a priority objective.

- Low impact silvicultural systems are increasingly important for diversifying the structure of productive conifer woodlands. LISS thinning and felling will progress transformation of stands.

- Diversify productive conifer species mixes.

Status of waterbodies is generally poor or moderate.

- Implementation of LISS approaches and predominantly broadleaf restocking should reduce acidification and run-off from operations over the medium-to-long term.

Restoration of ancient woodland (ASNW + PAWS) is a priority objective.

- Conifer PAWS felling in Riccal Dale over the forest plan period will be naturally regenerated with native broadleaf species, with enrichment planting used where necessary.

- Thinning of broadleaf PAWS will improve structural diversity and light conditions.

- Ancient woodlands will be buffered with predominantly broadleaf restocking following felling operations.

Improving soil health and nutrient cycling is a priority objective.

- Restore PAWS and increase use of low impact silvicultural systems to reduce disturbance.

- Increase availability of different types of deadwood resource (especially from native tree species).

- Monitor soil health under different management types to inform future management.

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Kilometers

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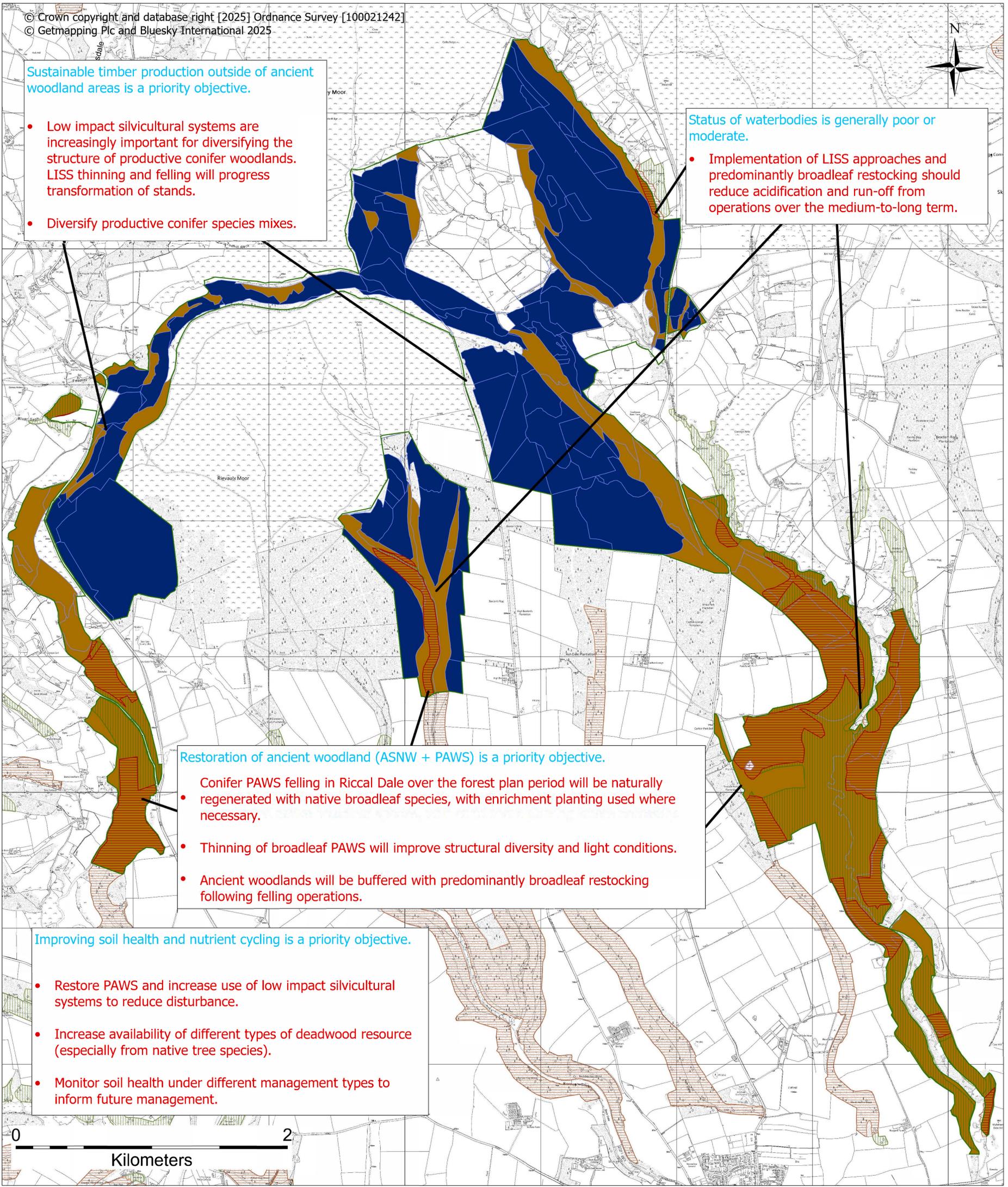
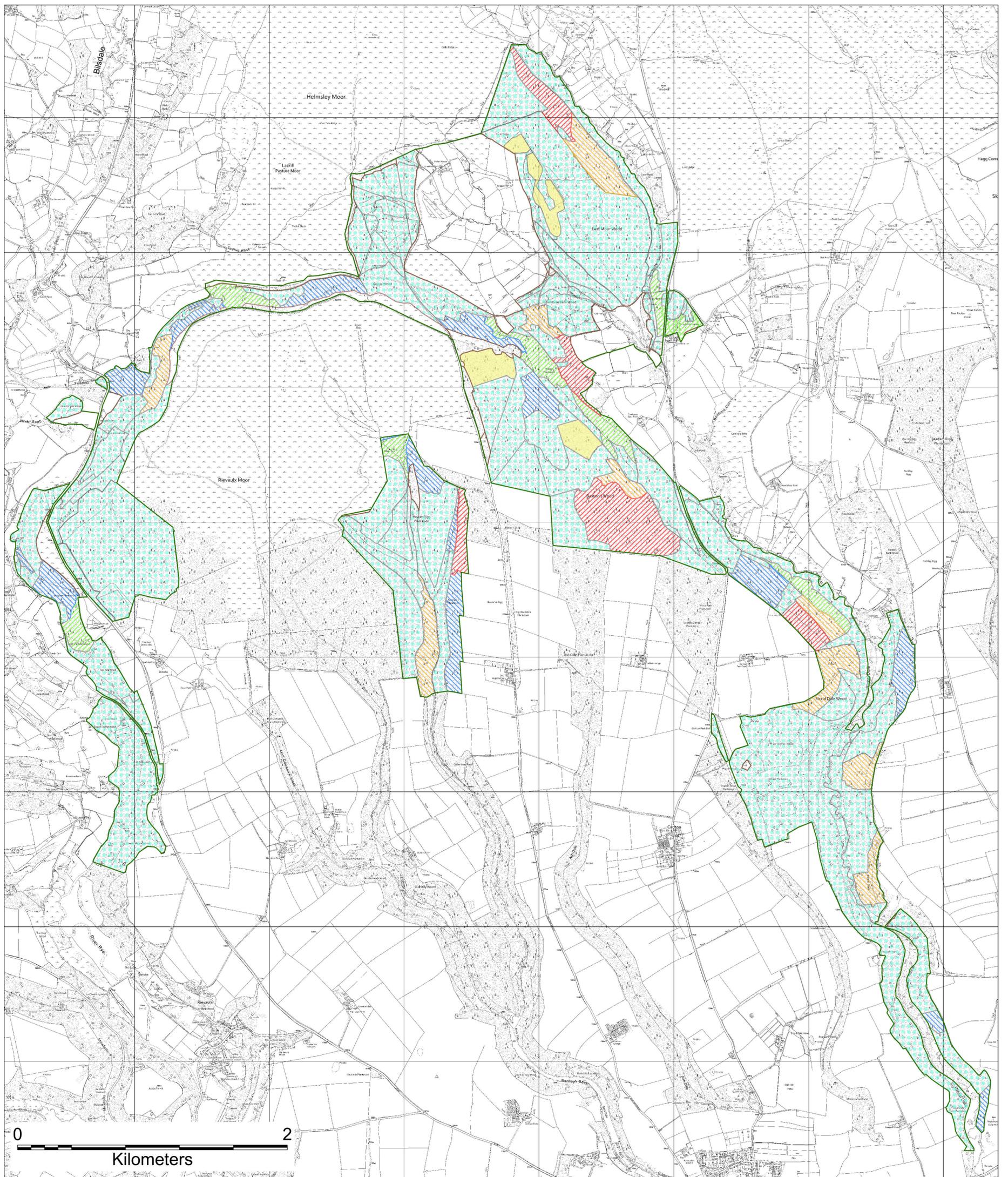## Eastmoor and Riccaldale Forest Plan

Map 05 - Analysis and Concept
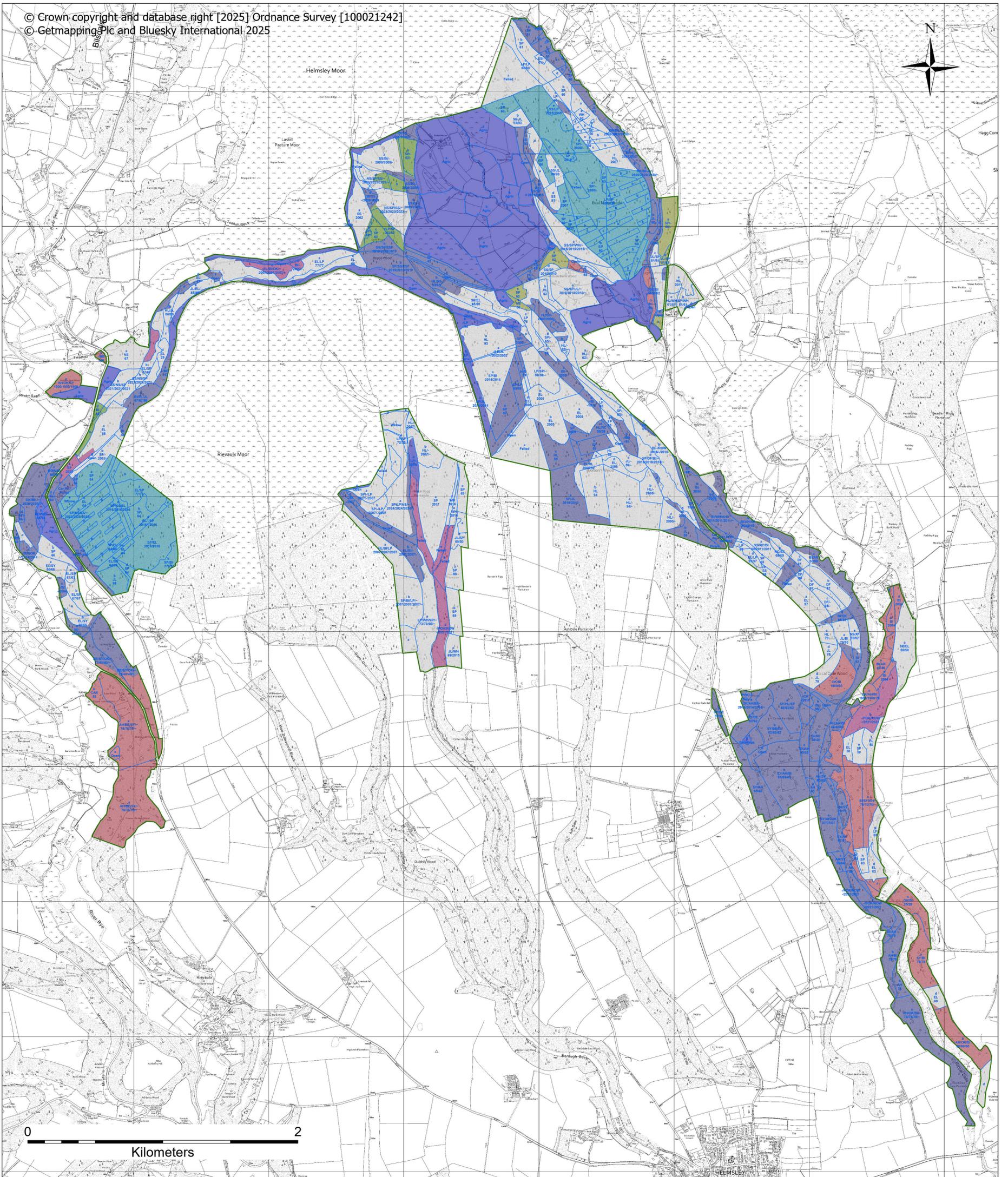
Created: June 2025
Scale: 1:10,000
Scale at A0

- Manage as predominantly mixed broadleaf
- Manage as predominantly productive mixed confider
- No Species
- Ancient & Semi-Natural Woodland
- Ancient Replanted Woodland
- Blocks

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Kilometers

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Eastmoor and Riccaldale Forest Plan

Map 06 - Proposed Felling Year

Created: February 2026
Scale: 1:10,000
Scale at A0

2022-2026	
2027-2031	
2032-2036	
2037-2041	
2042-2046	
Beyond 2046 or LISS	
Other/Open land	

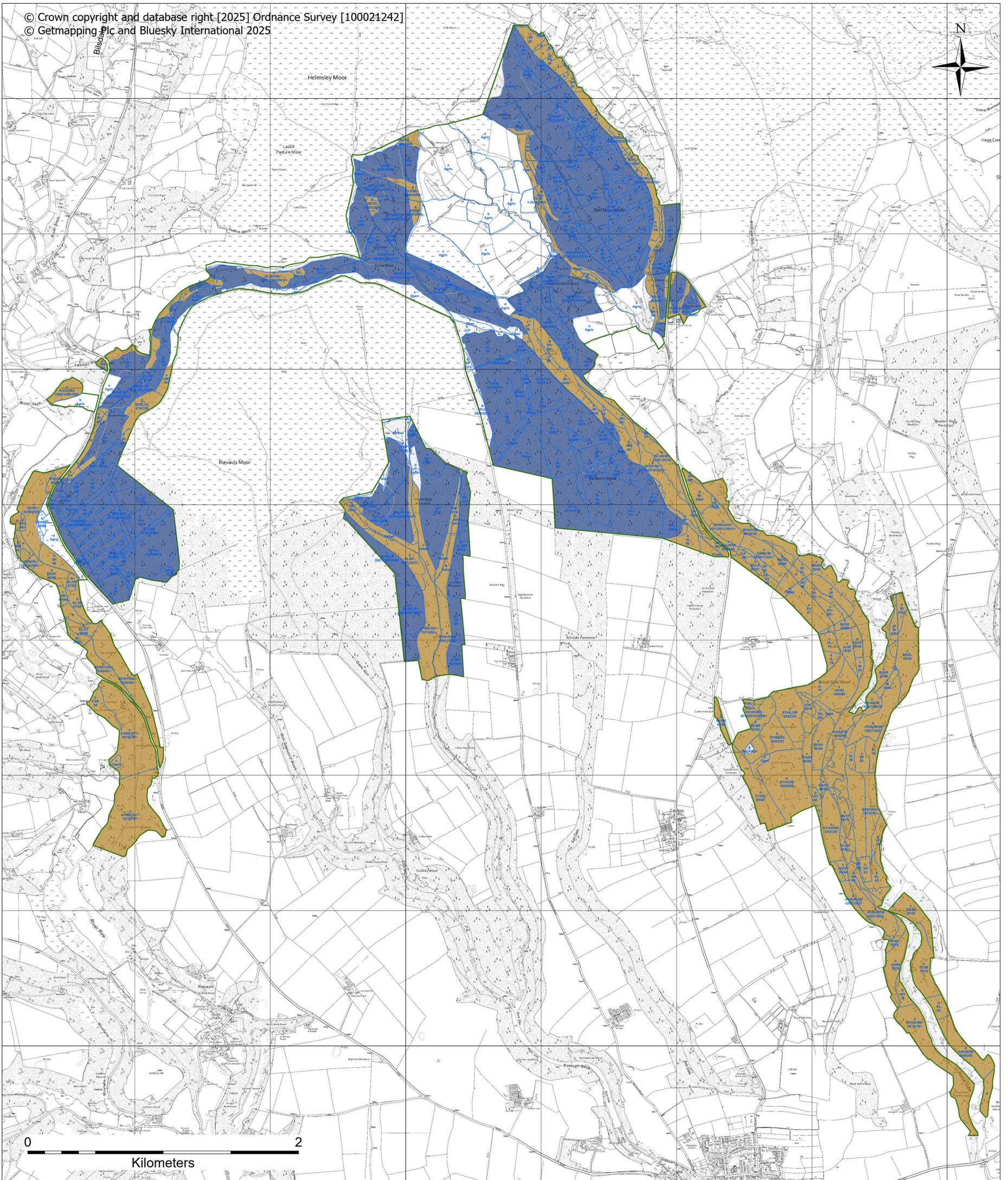**Forestry England**

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Map 07 - Management Type

Created: June 2025
Scale: 1:10,000
Scale at A0

Legend:
- Clearfell
- Long Term Retention
- Strip shelterwood
- Group shelterwood
- Uniform shelterwood
- Irregular shelterwood (general)
- Minimum Intervention
- Other\Open Land

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Kilometers

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Kilometers

Eastmoor and Riccaldale Forest Plan

Map 08 - Future Habitat and Restock

Created: June 2025
Scale: 1:10,000
Scale at A0

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- ▮ Predominantly Broadleaves
- ▮ Predominantly Conifers
- ▯ No Species