



Moorland Restoration & Management Plan

Scout Moor II Further Environmental Information

June 2026



Technical Document

Moorland Restoration and Management Plan (MRMP)

Scout Moor II Wind Farm

Cubico Wind Development (Wind 1) Ltd



Contents

1. Introduction	2
1.1 Objectives	2
1.2 Plan Area	3
1.3 The MRMP Scope	4
2. Surveys and Methodology	5
2.1 Scope	5
2.2 Methodology	5
3. Current Moorland Baseline	7
3.1 Vegetation	7
3.2 Moorland Condition	17
3.3 Grazing	18
3.4 Causes of Degradation	18
4. Restoration and Management	19
4.1 Controlled Restoration	19
4.2 Community Restoration	30
4.3 Prescription Summary	30
5. Conclusions	32
6. References	33
7. Figures	34
Appendices	35
Appendix A. Images and further details	36
Appendix B. Moorland Planting List	48
Appendix C. Suggested proportions of <i>Sphagnum</i> species for plug planting	49

Contents

Tables

Table 1:	Results from quadrat surveys undertaken within M25a (abundance using DOMIN).	7
Table 2:	Results from quadrat surveys undertaken within M25b (abundance using DOMIN).	8
Table 3:	Results from quadrat surveys undertaken within M20 (abundance using DOMIN).	9
Table 4:	Results from quadrat surveys undertaken within M3 (abundance using DOMIN).	10
Table 5:	Results from Quadrat surveys undertaken within M6c (abundance using DOMIN).	11
Table 6:	Results from quadrat surveys undertaken within M17 (abundance using DOMIN).	12
Table 7:	Results from quadrat surveys undertaken H18a (abundance using DOMIN).	13
Table 8:	Results from quadrat surveys undertake within H12c (abundance usinf DOMIN).	14
Table 9:	Annex 1 and HPis.	16
Table 10:	Potential groundwater dependence.	16
Table 11:	Prescriptions for Moorland Restoration	20
Table 12:	Outline Prescriptions and Proposed Monitoring Schedules	31
Table 13:	Site photographs and further details.	36
Table 14:	Moorland Suggested Species List	48
Table 15:	Proportions of Sphagnum species to be used in plugs	49

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Executive Summary

The moorland habitats present within the Application Site for Scout Moor II are acknowledged to be severely degraded, caused by numerous factors including unsuitable management and drainage, illegal off roading and inconsistent livestock stocking levels. Degraded peatlands can release carbon into the atmosphere and can in extreme cases increase flood risk due to reduced drainage, and therefore restoration of these habitats is vital.

Alongside the development of the proposed Scout Moor II Wind Farm there is the opportunity to restore and enhance large parts of this degraded moorland habitat. This MRMP identifies the areas of degraded peatland, and sets out clear and concise prescriptions to enhance and restore these areas.

The restoration strategy comprises two distinct approaches:

- 'Controlled Restoration' – traditional peatland enhancement;
- 'Community Restoration' – community led enhancement measures, working with those who rely on the moor for grazing and other activities.

The MRMP aims to restore the moorland to an attractive, biodiverse and functional peatland, increasing its ability for carbon sequestration, providing consistent grazing for stock and overall enhancing the important habitats to favourable condition.

The MRMP is separate to the Habitat Management and Monitoring Plan (HMMP) as it specifically focuses on the 'irreplaceable' peatland habitats present within the Application Site.

1. Introduction

This Moorland Restoration and Management Plan (MRMP) has been prepared by Atmos Consulting Ltd (Atmos) on behalf of Cubico UK Development (Wind 1) Limited ('the Applicant' or 'Cubico'). It is submitted as part of Further Environmental Information in respect of the cross-boundary applications for full planning permission ('the Applications') relating to the construction and operation of a new onshore wind farm (to be known as 'Scout Moor II'), alongside a comprehensive moorland restoration scheme (the 'Proposed Development'), on land at Rooley Moor ('the Application Site').

The Site crosses the administrative boundaries of Rossendale Borough Council ('RBC') and Rochdale Metropolitan Borough Council ('RMBC') (collectively referred to as 'the Councils'). The Councils are the Local Planning Authorities ('LPA's') responsible for the determination of the Applications, which were originally submitted on 23 July 2025 and were validated by the Councils on 07 August 2025 (RBC ref. 2025/0267 and RMBC ref. 25/00680/FUL).

Following the completion of an extended period of statutory consultation on the Applications, the Applicant has evolved the Proposed Development to respond to comments received from statutory and non-statutory consultees, the public and other interested stakeholders and is hereby formally amending the Applications through the submission of Further Environmental Information ('FEI'). The FEI supersedes the information submitted in July 2025 ('the 2025 Submission') and will be subject to further statutory consultation by the Councils. A summary of the amendments to the Applications is set out in detail the Planning, Design and Access Statement (prepared by Turley), but in summary includes the reduction in turbine numbers from 'up to 17 turbines' to 'up to 12 turbines', alongside the relocation/repositioning of turbine positioning, access track layout and the layout and design of other associated infrastructure.

As bog and mire habitats are considered 'irreplaceable' habitats in terms of Statutory Biodiversity Net Gain, impacts to these habitats cannot be considered as part of the BNG calculations and must be dealt with separately, in a bespoke way. Therefore, enhancements set out in this MRMP are only focused only on the moorland habitats and are considered separate to the 10% BNG requirement. The habitat condition assessments undertaken across the Application Site as part of the statutory BNG requirements have extended to these habitat areas. Thus, valuable information has nonetheless been gathered on the condition of the habitats within the MRMP to ensure consistency with the BNG calculations.

The MRMP has been drafted using NatureScot guidance for developments on peatland¹ due to the fact that no such comparable guidance currently exists in England. This guidance includes measures for peatland restoration at a ratio of 1:10, i.e for every 1ha of peatland habitat lost, 10ha of further peatland will be enhanced.

1.1 Objectives

The MRMP objectives are:

- To improve the condition of the moorland habitats within the MRMP restoration areas to a favourable condition;
- Restore all habitats that are disturbed or damaged as part of the future construction and maintenance of the proposed wind farm;

¹ <https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management#Enhancement>, November 2023

- Provide the monitoring and management prescriptions required to enhance the restoration areas from 'poor' or degraded condition to 'good' condition;
- Facilitate long term maintenance of the MRMP restoration areas.

1.2 Plan Area

The MRMP restoration areas were selected following a site search assessment to identify suitable areas for restoration without limitations on prescription activities.

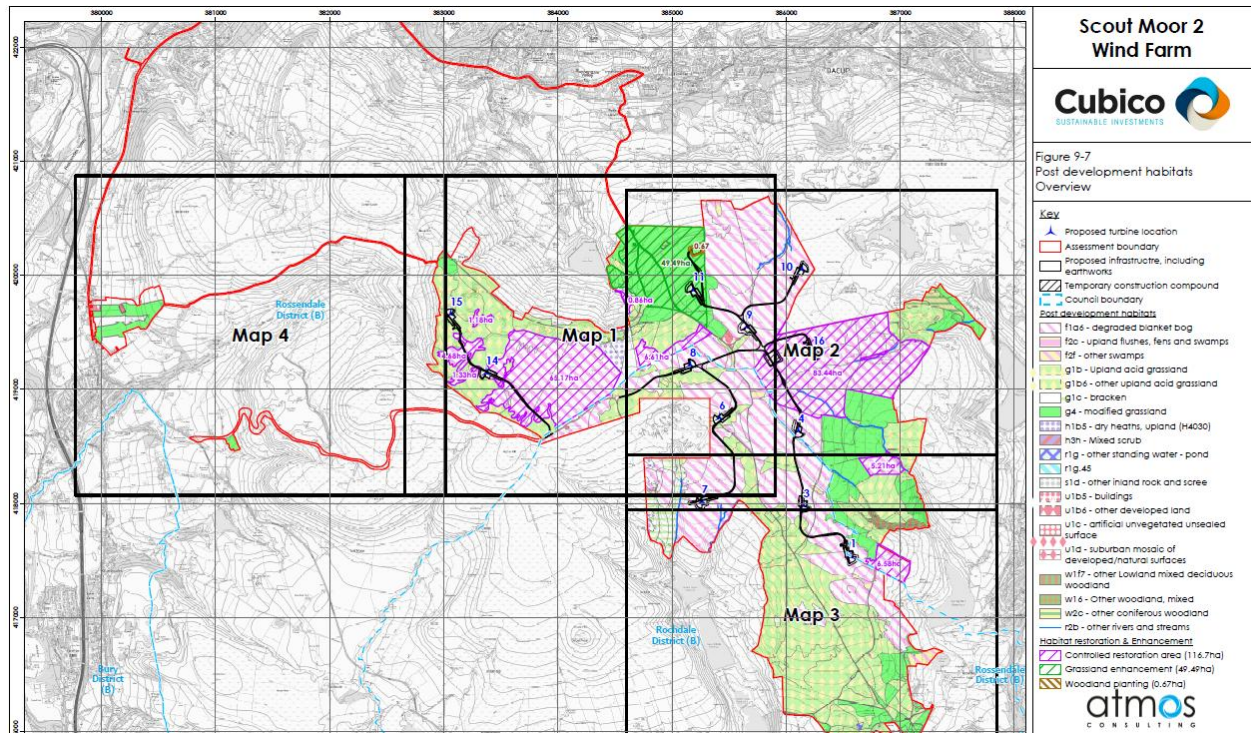
Two different types of restoration area have been identified:

1. 'Controlled Restoration': Areas outside of active Common Land within the Application Site – 116.7ha (99.77ha in Rossendale District and 16.93ha in Rochdale District). These areas will be enclosed with stock proof fencing and used as peat translocation and reseeded locations. These areas will be controlled and fenced to reduce pressures from stock and illegal off-roading vehicles.
2. 'Community Restoration' Areas within Common Land within the Application Site – 228ha (115ha in Rossendale District, 113 in Rochdale District). Areas within Common Land will not be managed using traditional 'hard' restoration prescriptions but instead will be managed via cutting schedules and stock rotation as needed to benefit the less degraded peatland areas, without impacting on the rights of the common land.

The objective will be for all of the land to eventually come under community restoration as the translocated and enhanced peat becomes established.

The areas included in this MRMP are presented in Figure 1, appended to the rear of this document and an overview of this map is inserted below. The areas indicated by dark purple hashing indicates the controlled restoration areas, with the wider bog indicated in pink and white striped.

Image 1 Outline MRMP Areas



Source: Atmos Consulting Ltd, 2025

1.3 The MRMP Scope

Currently, 16.84ha of peatland is expected to be lost to the proposed Scout Moor II development. In accordance with NatureScot Guidance (2023), the objective is to restore c.160ha of habitat. Following site surveys and aerial mapping, 116.7ha of land within the area identified for controlled restoration has been identified as suitable for peatland restoration, using traditional and peer reviewed measures. These areas, together with those for 'community restoration' (228ha) where only Molinia cutting will be completed remain above the 1:10 ratio.

The MRMP is a fluid document that would evolve during the different the project depending on change in circumstance and condition. As such it would be subject to constant review. The MRMP structure includes:

- Current baseline, including condition assessment of the moorland habitats;
- Current pressures of the moorland;
- Outline prescriptions for peatland restoration and enhancement; and
- Monitoring and management regimes.

2. Surveys and Methodology

2.1 Scope

The following surveys and resources have been utilised in the formation of this plan:

- NVC survey
- Phase 1 peat probing
- Phase 2 peat probing
- Peat depth mapping
- Peat condition assessments
- Biodiversity Net Gain guidance²
- NatureScot guidance³
- SEPA GWTDE guidance⁴

The scope of the moorland restoration prescriptions have been developed with input from Atmos Consulting Ltd (Ecology and BNG), Fluid Environmental Consulting (Peat and Hydrology) and OWC Ltd (Peat and geomorphology).

2.2 Methodology

2.2.1 NVC

Botanical surveys were conducted in the form of a National Vegetation Classification (NVC) survey. This survey was completed between 15th July – 8th August 2024.

The vegetation was surveyed by a suitably qualified (FISC Level 4) and experienced botanical surveyor using the NVC (Rodwell, 1991 – 2000, 5 volumes) and in accordance with NVC survey guidelines (Rodwell, 2006). The NVC scheme provides a standardised system for classifying and mapping semi-natural habitats and ensures that surveys are carried out to a consistent level of detail and accuracy.

Homogenous stands and mosaics of vegetation were identified and mapped by eye, drawn as areas onto field maps; these areas were surveyed qualitatively to record dominant and constant species, sub-dominant species and other species present. In practice the vegetation was mapped progressively across the Application Site to ensure that no areas were missed and that mapping was accurate. An aerial photograph of the Application Site was also used to aid accurate mapping of

² The following were used: DEFRA (2025) Statutory biodiversity metric tools, Greater Manchester Combined Authority. (2024). Biodiversity Net Gain Guidance for Planners & Applicants (https://www.greatermanchester-ca.gov.uk/media/9280/gmeu_lpa_guidance-note_final_1402_issue.pdf), Greater Manchester Combined Authority. (2025) Guidance Note: Biodiversity Net Gain Strategic Significance and the Greater Manchester Combined Authority. (2025) Manchester Local Nature Recovery Strategy (<https://www.greatermanchester-ca.gov.uk/media/kohkgiuc/guidance-note-greater-manchester-approach-to-biodiversity-net-gain-strategic-significance-and-the-gm-local-nature-recovery-strategy.pdf>).

³ NatureScot (2023). Advising on peatland, carbon-rich soils and priority peatland habitats in development management. November 2024. Available online at: <https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management>.

⁴ SEPA (2017). Land Use Planning System SEPA Guidance Note 31. Version 3. SEPA (2024). Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems. Scottish Environment Protection Agency. Available online at: <https://www.sepa.org.uk/media/i2cnr03k/guidance-on-assessing-the-impacts-of-developments-on-groundwater-dependent-terrestrial-ecosystems.docx>.

vegetation boundaries. NVC communities were attributed to the mapped areas using surveyor experience and matching field data against published floristic tables (Rodwell, 1991 – 2000). Stands were classified to sub-community where possible. For every species recorded, an estimate was made of its quantitative contribution to the habitat. When quadrats were completed this abundance was estimated using the DOMIN scale:

- Cover of 91-100% given a score of 10;
- Cover of 76-90% given a score of 9;
- Cover of 51-75% given a score of 8;
- Cover of 34-50% given a score of 7;
- Cover of 26-33% given a score of 6;
- Cover of 11-25% given a score of 5;
- Cover of 4-10% given a score of 4;
- <4% (many individuals) given a score of 3;
- <4% (several individuals) given a score of 2; and
- <4% (few individuals) given a score of 1.

Data recorded outside of quadrats used the DAFOR scale when recording species composition, which stands for dominant (51-100%), abundant (31-50%), frequent (16-30%), occasional (6-15%) and rare (1-5%).

The full results from the NVC surveys are presented in Figure 3, appended at the rear of this document.

2.2.2 GWDTE Survey Methods

As part of the NVC exercise, any wetland habitats identified with the survey buffers stated earlier were evaluated in terms of their potential to be Groundwater Dependent Terrestrial Ecosystems (GWDTEs), making reference to SEPA guidance (SEPA, 2017), modified from the United Kingdom Technical Advisory Group (UKTAG) list of NVC communities and associated groundwater dependency scores.

GWDTE are defined within the UKTAG report (UK Technical Advisory Group, 2004) as:

“A terrestrial ecosystem of importance at Member State level that is directly dependent on the water level in or flow of water from a groundwater body (that is, in or from the saturated zone). Such an ecosystem may also be dependent on the concentrations of substances (and potential pollutants) within that groundwater body, but there must be a direct hydraulic connection with the groundwater body.”

A detailed study of vegetation communities allows the potential level of groundwater dependency to be determined.

Determination of complete groundwater dependency is complicated by the ability of many vegetation communities to use whatever source of water is available. In some topographical and hydrogeological conditions, a particular community can be groundwater-dependent whereas in others the same community is surface water-dependent. Seasonal patterns of water use provide an additional level of complexity, with groundwater reliance typically being greater in the summer when rainfall and surface water are less available.

3. Current Moorland Baseline

3.1 Vegetation

3.1.1 NVC

The NVC survey recorded a total of nineteen communities, eight of which are considered to be of relevance to moorland and peat restoration. Where these communities were floristically distinct, they were assigned to corresponding sub-communities. The relevant moorland communities recorded during the survey were:

- Mires, springs and flushes: M25, M20, M3, M6, M1 and M2; and
- Dry heath communities: H18 and H12.

A map containing all the recorded NVC communities, and their locations, can be found on Figure 2.

M25 Purple moor-grass *Molinia caerulea* – Tormentil *Potentilla erecta* mire

This mire community was found widely across the Application Site, with two sub-communities occurring namely M25a cross-leaved heath *Erica tetralix* sub-community and M25b sweet vernal grass *Anthoxanthum odoratum* sub-community.

The M25a *Erica tetralix* sub-community, in which common cotton-grass *Eriophorum angustifolium*, hare's-tail cotton-grass *Eriophorum vaginatum*, sphagnum *Sphagna* sp. and common haircap *Polytrichum commune* are all preferential, was the most widespread. This sub-community signals the presence of degraded blanket bog, as it has come to replace stands of burnt, grazed and drained blanket bog communities. Vegetation height within the five M25a quadrats varied between 5 up to 60cm, with leaf litter in quadrat 14 being only 10% whilst 90% of quadrat 18 was covered with leaf litter.

Table 1: Results from quadrat surveys undertaken within M25a (abundance using DOMIN).

Quadrat	8	14	17	18	19
Date	18/07/24	24/07/24	30/07/24	31/07/24	01/08/24
Easting, Northing	386256, 417679	385678, 420055	386660, 419459	386604, 417467	385491, 417594
Species					
<i>Molinia caerulea</i>	9	8	9	9	8
<i>Potentilla erecta</i>	Not present	Not present	Not present	Not present	Not present
<i>Agrostis canina</i>	Not present	2	Not present	Not present	Not present
<i>Calypogeia fissa</i>	Not present	Not present	Not present	Not present	2
<i>Deschampsia flexuosa</i>	2	Not present	Not present	2	3
<i>Eriophorum angustifolium</i>	Not present	Not present	3	2	Not present
<i>Eriophorum vaginatum</i>	2	5	2	3	Not present
<i>Festuca ovina</i>	Not present	Not present	Not present	Not present	4
<i>Festuca rubra</i>	Not present	3	Not present	2	Not present
<i>Hypnum jutlandicum</i>	2	Not present	Not present	3	4
<i>Juncus squarrosus</i>	Not present	Not present	Not present	Not present	3
<i>Luzula multiflora</i>	Not present	Not present	Not present	Not present	2

Quadrat	8	14	17	18	19
Date	18/07/24	24/07/24	30/07/24	31/07/24	01/08/24
Easting, Northing	386256, 417679	385678, 420055	386660, 419459	386604, 417467	385491, 417594
Species					
<i>Polytrichum commune</i>	3	8	Not present	Frequent – locally abundant	5
<i>Rhytidiadelphus loreus</i>	Not present	Not present	Not present	Not present	2
<i>Rhytidiadelphus squarrosus</i>	Not present	Not present	Not present	Not present	4
<i>Sphagnum fallax</i>	2	Not present	Not present	Not present	Not present
<i>Sphagnum fimbriatum</i>	Not present	3	Not present	Not present	3
<i>Sphagnum papillosum*</i>	4	Not present	2	Not present	Not present
<i>Sphagnum subnitens</i>	Not present	Not present	4	Not present	Not present
<i>Vaccinium myrtillus</i>	Not present	Not present	Not present	Not present	3

*Checked using a microscope.

M25b *Anthoxanthum odoratum* sub-community is a marshy grassland community typically found on slopes and drier places. Vegetation height ranged between 25 to 40cm whilst vegetation litter covered 20% for M25b *Anthoxanthum odoratum* sub-community. Stands of M25b were often found in conjunction with extensive areas dominated by soft rush *Juncus effusus*, where the rush has taken over areas previously dominated by purple moor-grass (with purple moor-grass still present in the sward).

Table 2: Results from quadrat surveys undertaken within M25b (abundance using DOMIN).

Quadrat	10
Date	19/07/24
Easting, Northing	386496, 418344
Species	
<i>Molinia caerulea</i>	9
<i>Potentilla erecta</i>	1
<i>Agrostis capillaris</i>	2
<i>Anthoxanthum odoratum</i>	3
<i>Deschampsia flexuosa</i>	3
<i>Festuca rubra</i>	4
<i>Galium saxatile</i>	3
<i>Hypnum jutlandicum</i>	3
<i>Juncus squarrosus</i>	3
<i>Luzula multiflora</i>	1
<i>Nardus stricta</i>	3
<i>Polytrichum commune</i>	2
<i>Rhytidiadelphus squarrosus</i>	3

A single area of M25 *Molinia caerulea* – *Potentilla erecta* mire that did not fit any sub-community and was regarded as being species-poor was recorded within the north of the Application Site, shown on Figure 2. This area was dominated by purple moor-grass with occasional rosebay willowherb

Chamenerium angustifolium, wavy hair-grass *Deschampsia flexuosa* and heath plait-moss *Hypnum jutlandicum* whilst lady fern *Athyrium filix-femina* and young grey willow *Salix cinerea* were recorded rarely.

M25 communities can feature as part of the internationally important Annex I habitat 'Degraded raised bogs still capable of natural regeneration'. However areas can only be included within this Annex 1 habitat "where the hydrology can be repaired and where, with appropriate rehabilitation management, there is a reasonable expectation of re-establishing vegetation with peat-forming capability within 30 years"⁵. The large stand of M25a *Erica tetralix* sub-community found on near-flat expanses of peat will be restored, detailed in Section 4 below.

M20 Hare's-tail cotton-grass *Eriophorum vaginatum* blanket and raised mire

M20 *Eriophorum vaginatum* blanket and raised mire contains bog vegetation in which hare's-tail cotton-grass is dominant, with common cotton-grass being the only other constant species found in M20 communities and shrubs rarely found. Sphagnum mosses are typically uncommon in M20 however sphagnum was occasional or abundant in many stands; suggesting this habitat derived from Sphagnum-rich bog communities such as M18 *Erica tetralix* – *Sphagnum papillosum* raised and blanket mire or M17 *Trichophorum germanicum* – *Eriophorum vaginatum* blanket mire.

This habitat is extensive on the plateaux in the north-west of the Application Site (shown on Figure 2), containing a deep peat layer that has suffered from erosion caused by recreational pressure particularly from motorbikes, off-road vehicles and mountain bikes, as well as occasional burning. It is in these eroded areas that stands of M3 *Eriophorum angustifolium* bog pool vegetation were noted. These areas of species-poor, damaged blanket mires on the plateau in the north-west of the Application Site will be restored; outlined in Section 4 below.

There are two sub-communities for M20 *Eriophorum vaginatum* blanket and raised mire, with areas within the Application Site falling within the species-poor sub-community. Vegetation height ranged between 5 to 50cm whilst the percentage of leaf litter was 5% or less.

Table 3: Results from quadrat surveys undertaken within M20 (abundance using DOMIN).

Quadrat	1	6	28
Date	16/07/24	17/07/24	08/08/24
Easting, Northing	384096, 419165	383413, 419429	385224, 419303
Species			
<i>Eriophorum vaginatum</i>	8	7	8
<i>Eriophorum angustifolium</i>	5	5	4
<i>Cephaloziella</i> sp	Not present	Not present	2
<i>Deschampsia flexuosa</i>	2	3	2
<i>Empetrum nigrum</i>	Not present	3	Not present
<i>Festuca ovina</i>	Not present	2	Not present
<i>Hypnum jutlandicum</i>	Not present	5	3
<i>Lophozia ventricosa</i>	Not present	Not present	2
<i>Molinia caerulea</i>	Not present	Not present	3
<i>Nardus stricta</i>	3	4	Not present
<i>Plagiothecium undulatum</i>	Not present	Not present	2
<i>Polytrichum commune</i>	4	5	6
<i>Polytrichum strictum</i>	Not present	3	Not present

⁵ JNCC – Degraded bog habitat – available at <https://sac.jncc.gov.uk/habitat/H7120/>, accessed November 2025.

Quadrat	1	6	28
Date	16/07/24	17/07/24	08/08/24
Easting, Northing	384096, 419165	383413, 419429	385224, 419303
Species			
<i>Sphagnum fallax</i>	Not present	Not present	5
<i>Sphagnum fimbriatum</i>	3	Not present	4
<i>Sphagnum subnitens</i>	8	5	Not present

Overall, M20 *Eriophorum vaginatum* blanket and raised mire areas within the Application Site were dominated by hare's-tail cotton-grass with abundant to locally dominant common cotton-grass, with the exception of one area where no common cotton-grass was found (located at Easting: 384186, Northing: 419355).

M3 Common cotton-grass *Eriophorum angustifolium* bog pool

M3 *Eriophorum angustifolium* bog pool community is found in uncharacteristically large stands across the north of the Application Site (as shown on Figure 2), despite this habitat typically covering small stands of open water in blanket bog. Common cotton-grass is a coloniser of bare peat and, as such, has colonised the areas of damaged peat on the plateau in the north-west of the Application Site. On undisturbed sites M3 stands may develop into other blanket bog communities, but on this Application Site the community persists due to the continual disturbance.

Also present on the plateau is a vegetation which appears to be intermediate between M20 *Eriophorum vaginatum* blanket and raised mire and M3 *Eriophorum angustifolium* bog pool. This intermediate vegetation likely marks where the colonising M3 vegetation is becoming M20 blanket mire, but has not yet attained its usual tussocky appearance.

Vegetation height ranged between 5 to 25cm whilst vegetation litter covered 10% or less and 25% of peat was exposed at NGR SD 85261 19336.

Table 4: Results from quadrat surveys undertaken within M3 (abundance using DOMIN).

Quadrat	2	4	5	27
Date	16/07/24	17/07/24	17/07/24	08/08/24
Easting, Northing	383996, 419151	383056, 419851	383347, 419614	385261, 419336
Species				
<i>Eriophorum angustifolium</i>	7	7	7	6
<i>Eriophorum vaginatum</i>	6	5	4	6
<i>Campylopus flexuosus</i>	Not present	2	3	3
<i>Deschampsia flexuosa</i>	3	2	3	Not present
<i>Empetrum nigrum</i>	5	Not present	3	Not present
<i>Festuca ovina</i>	Not present	Not present	1	Not present
<i>Hypnum jutlandicum</i>	Not present	4	3	3
<i>Molinia caerulea</i>	Not present	Not present	Not present	4
<i>Nardus stricta</i>	Not present	6	6	Not present
<i>Polytrichum commune</i>	5	5	6	5
<i>Sphagnum palustre</i> *	4	Not present	Not present	Not present
<i>Sphagnum subnitens</i>	Not present	Not present	4	3
<i>Vaccinium myrtillus</i>	Not present	Not present	Not present	3

*Checked using a microscope.

Areas of M3 *Eriophorum angustifolium* bog pool present within the north of the Application Site were typically dominated by common cotton grass with abundant hare's-tail cotton grass and common haircap *Polytrichum commune*, frequent crowberry *Empetrum nigrum*, occasional to locally frequent mat grass *Nardus stricta*, occasional purple moor-grass, bilberry *Vaccinium myrtillus* and lustrous bog-moss *Sphagnum subnitens* with common heather *Calluna vulgaris* recorded rarely.

Target Note (TN) TN47 relates to an area of M3 *Eriophorum angustifolium* vegetation within a dried up depression in the north of the Application Site. This dry depression was dominated by common cotton-grass with abundant hare's-tail cotton-grass, frequent common haircap and occasional purple moor-grass and lustrous bog-moss.

M6 Star sedge *Carex echinata* – Cow-horn bog-moss *Sphagnum recurve* / *auriculatum* mire

Small patches of M6c *Carex echinata*-*Sphagnum recurvum/auriculatum* mire, aligning with the *Juncus effusus* sub-community, are scattered across the entirety of the Application Site. This is a flush community dominated by soft rush with common haircap and *Sphagna* species in the ground layer. It should be noted that all areas surveyed lacked star sedge despite this being a constant for this NVC community. Vegetation height ranged between 40 to 140cm whilst vegetation litter covered 50%.

Table 5: Results from Quadrat surveys undertaken within M6c (abundance using DOMIN).

Quadrat	9
Date	18/08/24
Easting, Northing	386404, 417901
Species	
<i>Carex echinata</i>	Not present
<i>Polytrichum commune</i>	Not present
<i>Sphagnum fallax</i>	5
<i>Agrostis canina</i>	3
<i>Juncus effusus</i>	8
<i>Sphagnum fimbriatum</i>	5
<i>Epilobium palustre</i>	3
<i>Holcus lanatus</i>	3
<i>Holcus mollis</i>	3
<i>Kindbergia praelonga</i>	3
<i>Lophocolea bidentata</i>	3
<i>Dryopteris dilatata</i>	1

M17 Deergrass *Trichophorum germanicum* – Hare's-tail cotton-grass *Eriophorum vaginatum* blanket mire

This blanket bog community was uncommon across the Application Site, composed of small fragments within areas of M25a *Molinia caerulea* – *Potentilla erecta* mire, *Erica tetralix* sub-community. Most M17 *Trichophorum germanicum* – *Eriophorum vaginatum* blanket mires were noted to be species-poor in nature, lacking some of the constant species required for M17, and typically ericoid-poor (lacking one of the ericoid shrubs), sphagnum-poor or both. This species-poor nature and lack of constants resulted in no sub-communities being assigned.

One larger stand of M17 is present within the west of the Application Site however this is also ericoid-poor and dominated by purple moor-grass with abundant hare's-tail cotton-grass and common haircap, frequent common heather, common cotton-grass and wavy hair-grass plus occasional red bog-moss *Sphagnum capillifolium/rubellum*. In contrast, stands that were not recorded as ericoid-

poor were dominated by bilberry with abundant purple moor-grass, hare's-tail cotton-grass and heath plait-moss, frequent red fescue *Festuca rubra* and wavy hair-grass plus occasional common cotton-grass. Vegetation height ranged between 5 to 45cm whilst vegetation litter covered 5% or less.

Table 6: Results from quadrat surveys undertaken within M17 (abundance using DOMIN).

Quadrat	13	29
Date	23/07/24	08/08/24
Easting, Northing	384881, 418250	384994, 418966
Species		
<i>Trichophorum germanicum</i>	Not present	5
<i>Calluna vulgaris</i>	Not present	Not present
<i>Erica tetralix</i>	Not present	5
<i>Narthecium ossifragum</i>	Not present	Not present
<i>Eriophorum angustifolium</i>	5	5
<i>Eriophorum vaginatum</i>	4	3
<i>Potentilla erecta</i>	Not present	Not present
<i>Sphagnum capillifolium</i>	Not present	Not present
<i>Sphagnum papillosum</i>	5	4
<i>Molinia caerulea</i>	8	7
<i>Campylopus introflexus</i>	Not present	3
<i>Deschampsia flexuosa</i>	3	Not present
<i>Diplophyllum albicans</i>	2	Not present
<i>Empetrum nigrum</i>	Not present	4
<i>Hypnum jutlandicum</i>	4	Not present
<i>Polytrichum commune</i>	4	4
<i>Sphagnum auriculatum</i>	Not present	2
<i>Sphagnum cuspidatum</i>	3	Not present
<i>Sphagnum fallax</i>	3	Not present
<i>Sphagnum tenellum</i>	Not present	3
<i>Vaccinium myrtillus</i>	3	Not present

TN17 contained a sphagnum-poor area of M17 *Trichophorum germanicum* – *Eriophorum vaginatum* blanket mire on the western boundary. Vegetation here was dominated by bilberry with abundant hare's-tail cotton grass, purple moor-grass, heather and heath plait-moss, frequent wavy hair-grass and red fescue with occasional common cotton-grass.

TN20 was noted to be a very degraded patch of M17 *Trichophorum germanicum* – *Eriophorum vaginatum* blanket mire dominated by deergrass *Trichophorum germanicum* and frequent purple moor-grass with occasional bog asphodel *Narthecium ossifragum*, common cotton-grass, hare's-tail cotton-grass, cranberry *Vaccinium oxycoccos*, lustrous bog-moss, lesser cow-horn bog-moss *Sphagnum auriculatum/inundatum* and cross-leaved heather.

A fragment of M17 *Trichophorum germanicum* – *Eriophorum vaginatum* blanket mire is situated at TN21 in the west of the Site that was noted to contain abundant bilberry, hare's-tail cotton-grass and common haircap with frequent common cotton-grass, wavy hair-grass and heather plus occasional red bog-moss.

From the small scattered areas across the site, it is clear that this blanket bog community should have been widespread across the Application Site however its rarity reflects the current degraded state of the moorland.

H18 Bilberry *Vaccinium myrtillus* – Wavy hair-grass *Deschampsia flexuosa* heath

Patches of H18a *Vaccinium myrtillus* - *Deschampsia flexuosa* heath within the glittering wood-moss *Hylocomium splendens* – little shaggy moss *Rhytidiadelphus loreus* sub-community were found on steep slopes across the Application Site. Usually areas of H18a comprised small stands but did cloth entire slopes on occasion.

This is a dry heath community dominated by bilberry with wavy hair-grass and a ground layer of pleurocarpous mosses. Areas of H18a across the Application Site were noted to be species-poor and often lacked the constant species required for this NVC community including heath bedstraw *Galium saxatile*, broom fork-moss *Dicranum scoparium* and red-stemmed feather-moss *Pleurozium schreberi*. These two mosses, which are listed as constant species that should appear within H18 communities, are seemingly replaced on the Application Site with heath plait-moss and springy turf-moss *Rhytidiadelphus squarrosus*.

Vegetation height ranged between 5 to 25cm whilst vegetation litter covered under 2%.

Table 7: Results from quadrat surveys undertaken H18a (abundance using DOMIN).

Quadrat	11	15	16
Date	23/07/24	25/07/24	30/07/24
Easting, Northing	384836, 417785	384536, 419880	387344, 419701
Species			
<i>Vaccinium myrtillus</i>	8	8	9
<i>Deschampsia flexuosa</i>	4	4	4
<i>Galium saxatile</i>	4	Not present	Not present
<i>Dicranum scoparium</i>	3	Not present	Not present
<i>Pleurozium schreberi</i>	Not present	Not present	Not present
<i>Agrostis canina</i>	Not present	3	Not present
<i>Agrostis capillaris</i>	4	3	1
<i>Anthoxanthum odoratum</i>	3	Not present	Not present
<i>Blechnum spicant</i>	Not present	Not present	2
<i>Festuca ovina</i>	Not present	Not present	3
<i>Festuca rubra</i>	4	4	Not present
<i>Hypnum jutlandicum</i>	3	4	5
<i>Luzula multiflora</i>	Not present	1	Not present
<i>Molinia caerulea</i>	Not present	Not present	2
<i>Nardus stricta</i>	Not present	6	4
<i>Polytrichum commune</i>	Not present	Not present	4
<i>Rhytidiadelphus squarrosus</i>	6	6	3

H12 Heather *Calluna vulgaris* – Bilberry *Vaccinium myrtillus* heath

H12 *Calluna vulgaris* - *Vaccinium myrtillus* is a dry heath community with heather and bilberry as the main ericoid shrubs, whilst wavy hair-grass and bryophytes are typically present within the ground flora. A small area that did not fit into any sub-community is present in the north-western corner of the Application Site, whilst two areas of H12c *Galium saxatile* – sheep's fescue *Festuca ovina* sub-community were recorded along the western boundary; shown on Figure 2.

The fragment of H12 situated in the north-west of the Application Site was dominated by bilberry with abundant wavy hair-grass, frequent crowberry and occasional heather. Vegetation height ranged between 5 to 20cm whilst vegetation litter covered under 1%.

Table 8: Results from quadrat surveys undertake within H12c (abundance usinf DOMIN).

Quadrat	12
Date	23/07/24
Easting, Northing	384806, 417902
Species	
<i>Calluna vulgaris</i>	4
<i>Deschampsia flexuosa</i>	4
<i>Vaccinium myrtillus</i>	8
<i>Dicranum scoparium</i>	3
<i>Hypnum jutlandicum</i>	7
<i>Pleurozium schreberi</i>	2
<i>Agrostis capillaris</i>	4
<i>Anthoxanthum odoratum</i>	3
<i>Empetrum nigrum</i>	1
<i>Festuca ovina</i>	4
<i>Galium saxatile</i>	3
<i>Nardus stricta</i>	1
<i>Rhytidiadelphus squarrosus</i>	3

TN4 relates to a fragment of *Calluna vulgaris* - *Vaccinium myrtillus* dry heath situated to the south of the north-western corner with dominant bilberry, abundant wavy hair-grass, frequent common cotton-grass and crowberry, occasional heather and hare's-tail cotton-grass recorded rarely. Similarly TN5 is an area of H12 within this north-western corner surrounded by extensive peat hags. This area was noted to contain abundant to locally dominant crowberry, abundant bilberry, mat grass and wavy hair-grass with occasional common cotton-grass and heather. TN6 is a small fragment of H12 within this same part of the Application Site surrounded by M20 *Eriophorum vaginatum* blanket and raised mire and M3 *Eriophorum angustifolium* bog pool habitat.

M1 Cow-horn bog-moss *Sphagnum auriculatum* bog pool

Small areas of M1 *Sphagnum auriculatum* bog pool are shown on Figure 2 as TNs situated within the south of the Application Site.

TN26 is characterised by abundant cow-horn bog-moss and occasional feathery bog-moss *Sphagnum cuspidatum* with soft rush dominating at the pond margins with occasional bulbous rush *Juncus bulbosus* present.

TN30 was dominated by cow-horn bog-moss and common cotton grass with frequent bulbous rush and occasional purple moor-grass at the margins with frequent flat-topped bog-moss *Sphagnum fallax*.

TN31 contained abundant bogbean *Menyanthes trifoliata* and bog asphodel with frequent bog pondweed *Potamogeton polygonifolius* whilst beaked sedge *Carex rostrata* was present on the margins.

TN32 is situated within a stand of M25a *Molinia caerulea* – *Potentilla erecta* mire, *Erica tetralix* sub-community, and was dominated by cow-horn bog-moss with abundant common cotton-grass, frequent bog asphodel plus occasional bulbous rush and flat-topped bog-moss.

M2 Feathery bog-moss *Sphagnum cuspidatum* / *recurvum* bog pool

Three areas of M2 *Sphagnum cuspidatum*/*recurvum* bog pool are shown on Figure 2 as TNs located within the centre of the Application Site near the proposed location of turbines 9 and 11.

TN1 was dominated by flat-topped bog-moss with abundant common cotton-grass and occasional hare's-tail cotton-grass and common haircap.

TN15 relates to a bog pool within a depression dominated by both soft rush and flat-topped bog-moss with abundant common cotton-grass and frequent hare's-tail cotton-grass.

TN36 is dominated by flat-topped bog-moss with abundant common cotton-grass.

Other Habitats

Other habitats present across the Application Site include the following:

- U4 *Festuca ovina*-*Agrostis capillaris*-*Galium saxatile* acid grassland;
- U5 *Nardus stricta* – *Galium saxatile* acid grassland;
- U6 *Juncus squarrosus*-*Festuca ovina* acid grassland;
- U20 *Pteridium aquilinum*-*Galium saxatile*;
- MG6 *Lolium perenne*-*Cynosurus cristatus* grassland ;
- MG9 *Holcus lanatus*-*Deschampsia cespitosa* grassland;
- MG10 *Juncus effusus*-*Holcus lanatus* rush pasture;
- S10 *Equisetum fluviatile* swamp;
- *Juncus effusus* species-poor;
- Plantation woodland; and
- Stones/scree.

Habitat Mosaics

In areas where two NVC communities occurred close together and integrated into one another making it difficult to separate discrete stands of each community, mosaics were used. Mosaics were also used on spoil heaps or hillocks where two different vegetation communities occurred very close together (for instance one on the hill sides and one on top).

The largest areas mapped as a mosaic were the two plateaux in the north-west of the Application Site, which were mapped as mosaics between M20 *Eriophorum vaginatum* blanket and raised mire and M3 *Eriophorum angustifolium* bog pool community. The following mosaics were mapped across the Application Site:

- 80% M20 *Eriophorum vaginatum* blanket and raised mire and 20% M3 *Eriophorum angustifolium* bog pool community;
- 40% M20 *Eriophorum vaginatum* blanket and raised mire and 60% M3 *Eriophorum angustifolium* bog pool community;
- 40% M25b *Molinia caerulea* – *Potentilla erecta* mire, *Anthoxanthum odoratum* sub-community, 40% M6c *Carex echinata*-*Sphagnum recurvum/auriculatum* mire, *Juncus effusus* sub-community and 20% U6d *Juncus squarrosus*-*Festuca ovina* acid grassland, *Agrostis capillaris* - *Luzula multiflora* sub-community;
- 60% M25b *Molinia caerulea* – *Potentilla erecta* mire, *Anthoxanthum odoratum* sub-community and 40% U5a *Nardus stricta* – *Galium saxatile* acid grassland, species-poor sub-community;
- 70% M25b *Molinia caerulea* – *Potentilla erecta* mire, *Anthoxanthum odoratum* sub-community and 30% U5a *Nardus stricta* – *Galium saxatile* acid grassland, species-poor sub-community;
- 80% M25b *Molinia caerulea* – *Potentilla erecta* mire, *Anthoxanthum odoratum* sub-community and 20% U5a *Nardus stricta* – *Galium saxatile* acid grassland, species-poor sub-community;

- 80% *Juncus effusus* species-poor and 20% U5a *Nardus stricta* – *Galium saxatile* acid grassland, species-poor sub-community; and
- 70% *Juncus effusus* species-poor and 30% U5a *Nardus stricta* – *Galium saxatile* acid grassland, species-poor sub-community.

NVC Summary

All of the above recorded communities have potential affinities with Habitats of Principal Importance (HPI) in England (Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006). Heath and mire communities can also feature as part of the Annex I communities European dry heaths, Alpine and Boreal heaths, Active raised bogs, Degraded raised bogs still capable of natural regeneration and Blanket bogs; although it is unlikely the examples within the Application Site are of international importance (Annex 1).

Table 9: Annex 1 and HPIs.

NVC Code	Annex 1	Section 41 or NERC Act
M25 <i>Molinia caerulea</i> – <i>Potentilla erecta</i> mire	7130 Blanket bogs 7120 Degraded raised bogs still capable of natural regeneration	Blanket bog Purple moor-grass and rush pastures
M20 <i>Eriophorum vaginatum</i> blanket and raised mire	7130 Blanket bogs 7110 Active raised bogs	Blanket bog
M3 <i>Eriophorum angustifolium</i> bog pool	7110 Active raised bogs	Blanket bog
M6 <i>Carex echinata</i> - <i>Sphagnum recurva/auriculatum</i> mire	None	Upland Flushes, Fens and Swamps
M17 <i>Trichophorum germanicum</i> – <i>Eriophorum vaginatum</i> blanket mire	7130 Blanket bogs 7120 Degraded raised bogs still capable of natural regeneration	Blanket bog
H18 <i>Vaccinium myrtillus</i> – <i>Deschampsia flexuosa</i> heath	4030 European dry heaths 4060 Alpine and Boreal heaths	Upland heathland
H12 <i>Calluna vulgaris</i> - <i>Vaccinium myrtillus</i> heath	4030 European dry heaths 4060 Alpine and Boreal heaths	Upland heathland
M1 <i>Sphagnum auriculatum</i> bog pool	7110 Active raised bogs	Blanket bog
M2 <i>Sphagnum cuspidatum/recurvum</i> bog pool	7110 Active raised bogs	Blanket bog

GWDTE Survey Results

GWDTEs are classified according to SEPA (2017), defining each NVC community on their potential dependency on groundwater. Groundwater dependency is often linked to wetlands that contain flora dependent upon the chemical composition of the water fed from a groundwater source. SEPA defines the habitats with regard to their potential for groundwater dependency, therefore not all communities listed may be truly groundwater dependent. In total, there is one community listed as high potential for groundwater dependency and one listed as moderate, as defined by SEPA (2012); shown in Table 10 below.

Table 10: Potential groundwater dependence.

NVC Code	Potential groundwater dependence
M25 <i>Molinia caerulea</i> – <i>Potentilla erecta</i> mire	Moderate (dependent on the hydrogeological setting)
M20 <i>Eriophorum vaginatum</i> blanket and raised mire	None
M3 <i>Eriophorum angustifolium</i> bog pool	None

NVC Code	Potential groundwater dependence
M6 <i>Carex echinata</i> - <i>Sphagnum recurva/auriculatum</i> mire	High
M17 <i>Trichophorum germanicum</i> – <i>Eriophorum vaginatum</i> blanket mire	None
H18 <i>Vaccinium myrtillus</i> – <i>Deschampsia flexuosa</i> heath	None
H12 <i>Calluna vulgaris</i> - <i>Vaccinium myrtillus</i> heath	None
M1 <i>Sphagnum auriculatum</i> bog pool	None
M2 <i>Sphagnum cuspidatum/recurvum</i> bog pool	None

In addition to the above mire and heath communities, the following habitats also recorded within the Application Site are listed as moderate potential for groundwater dependency (dependent on the hydrogeological setting), as defined by SEPA (2012):

- U6 *Juncus squarrosus*-*Festuca ovina* acid grassland;
- MG9 *Holcus lanatus*-*Deschampsia cespitosa* grassland; and
- MG10 *Juncus effusus*-*Holcus lanatus* rush pasture.

3.2 Moorland Condition

As a whole, the moorland habitats within the areas to be lost to facilitate the development of the proposed Scout Moor II Wind, and on a wider scale, are considered to be sub-optimal and degraded.

The presence of bare and eroding peat is likely to be a result of historic and regular burning of the peatland, either wildfires or managed fires, along with pressures from illegal off-roading, inconsistent grazing and quarrying.

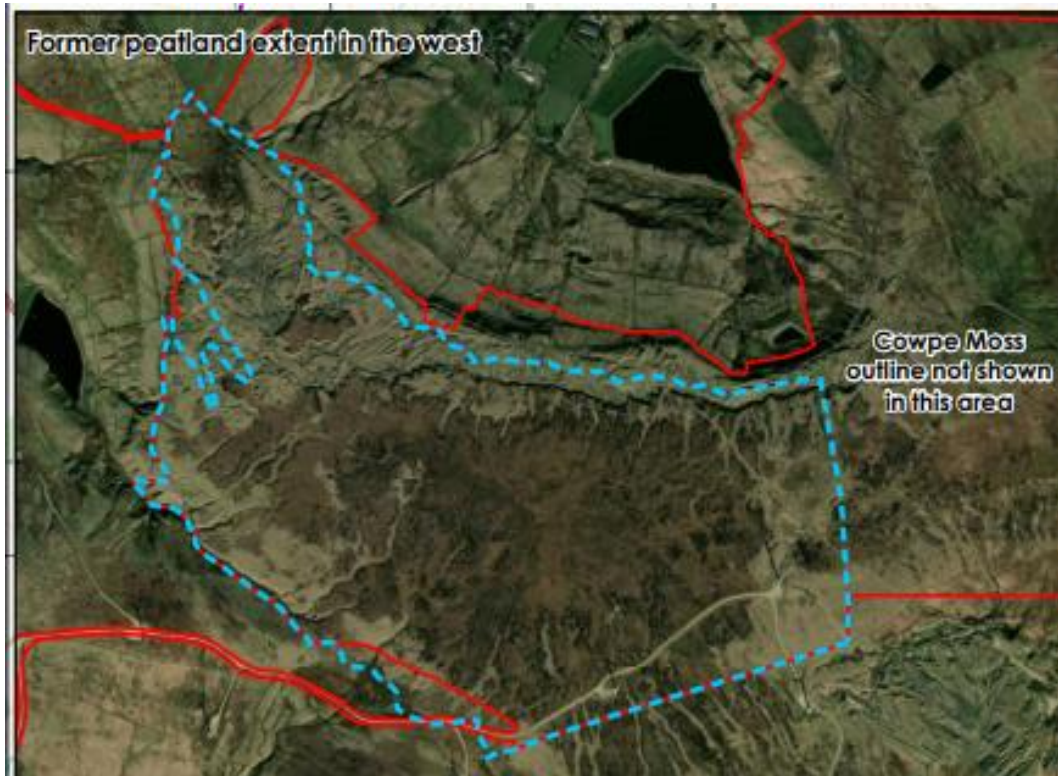
The NVC surveys confirmed that whilst there are communities that indicate presence of blanket bog, bog pools and mire habitat, within the Application Site, these are in a degraded state. The moorland is not species diverse, and in many cases, the habitats identified are low quality examples of these communities often lacking some constants.

Sphagnum species are sparse across the area, which is a sign of degraded active bog habitat. Rodwell (1998) states that reduced density of sphagnum in blanket bog reduces the hydrological capabilities of the bog and leads to less water being held. The combination of low levels of *Sphagnum* along with the bare peat and gullying present across the north western plateau is likely causing the surface of the bog to dry out and further degrade.

Purple moor grass is present almost over the entire area to be lost for the development of the proposed Scout Moor II Wind Farm, and this again indicated degradation of these habitats. Rodwell (1998) considers purple moor grass as an invasive species within these types of habitats due to the negative impacts it causes on the functionality of the bog habitats. Sheep will generally avoid purple moor grass and prefer to take the more palatable and nutritional species such as bent grasses, fescues and wavy hair grass. The area is under grazed and this has led to the purple moor grass dominating many areas of moorland habitat and out-competing more ecological desirable species.

Within the northwest portion of the Application Site there is a large plateau which has been quarried in the past. During the surveys, and following a review of aerial mapping, it was concluded that the peatland in this area had shrunk, and is now disconnected from the wider peatland. The image below demonstrates the extent of this loss.

Image 2 Former Peatland Extent



Source: OWC Ltd, 2025.

In summary, the site surveys have highlighted that the MRMP area lacks species diversity, with *Sphagnum* species noted as sparse and large areas are dominated by purple moor grass.

3.3 Grazing

The moorland has historically been overgrazed, with sheep being the main stock present in the area. However, as stated above, the moor is now under grazed and purple moor grass has become more dominant.

3.4 Causes of Degradation

The main causes of degradation that have been identified through these surveys are:

- Under grazing / incorrect stock species grazing where purple moor grass is dominant;
- Historic and regular burning;
- Off road vehicle damage; and
- Peat erosion and drying of bog surfaces through poor drainage.

4. Restoration and Management

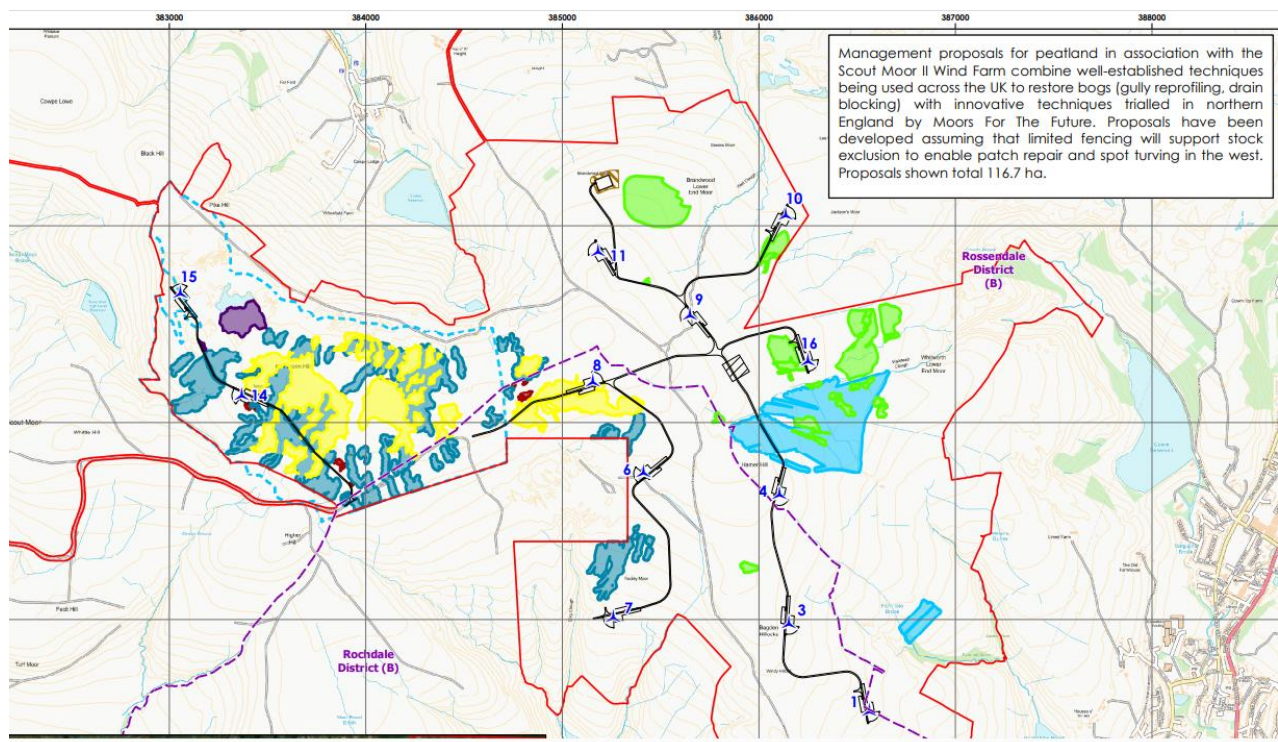
The restoration strategy is split into two categories – ‘Controlled Restoration’ and ‘Community Restoration’. The areas selected for the traditional peatland restoration, or the ‘Controlled Restoration’ have been selected using results from the ecology and hydrology surveys, identifying areas that require intervention to stop further degradation.

Please note that Figure 9-8 and image excerpts below depicting the controlled restoration areas has figures rounded to one decimal place for ease.

4.1 Controlled Restoration

The controlled restoration areas are shown on Image 3, which is appended at the rear of this report and also partly included below. These areas will be stock fenced and access controlled to enable the restored peatland to establish. The fencing will be present along the boundary of Common Land parcels CL94 and CL99, which are in the western portion of the Site. Stock and vehicles will be excluded from this area during the establishment of the habitats and slowly reintroduced in 8-10 years dependent on the monitoring results.

Image 3 Controlled Peatland Restoration Proposals



Source: OWC Ltd., 2025

The fencing of this area will also prevent access from illegal off-roading vehicles which have caused a large amount of damage via erosion to the existing moorland.

The sections below outlines the prescription methods proposed to reinstate and enhance the controlled moorland restoration area.

The prescription measures are presented in the table below for completeness then presented in more detail from Section 4.1.1 onwards.

Table 11: Prescriptions for Moorland Restoration

Prescription	Overview
1: Peatland restoration through increasing water levels	Increasing water levels through ditch blocking, gully reprofiling and bog creation (68.2ha).
2: Increasing the cover and diversity of Sphagnum species through controlling purple moor grass and undergoing plug planting	Plug planting, sport turving and patch repair (48.4ha).
3: Natural Regeneration of Vegetation	Flailing of purple moor grass to encourage natural growth (alongside plug planting above, but only in eastern area – 18.4ha).
4: Post-construction habitat monitoring through a programme of fixed-point photography and quadrat monitoring to document habitat restoration progress.	Post Construction Monitoring of enhancement plans to ensure deliverability and success.
5: Establishment of a Habitat Management Group	HMG to be formed to manage habitat and biodiversity enhancements.

4.1.1 Reduce Peatland Degradation

Aim

To increase the extent and diversity of blanket bog habitat in areas where suitable hydrological regimes can be created to support bog habitat. The aim is to increase blanket bog extent and provide opportunities for expansion of peatland floral species.

Background and Justification

Blanket bog is a priority habitat under Annex I of the EU Habitats Directive. Blanket bog also has priority status in the UK Biodiversity Action Plan.

Whilst much of the area within the Application Site has been identified as mire and bog habitat, there is evidence that areas identified for restoration are degraded and are capable of reverting back to active bog under the correct hydrological regimes. Some peatlands have been identified as being actively drained so by targeting and blocking in these areas it is possible to create bog pools and similar hydrological features (see Image 3 which shows bog pools and erosion features for restoration).

The Joint Nature Conservation Committee (JNCC) define 'active' as supporting a significant area of vegetation that is normally peat-forming. Typical species include the important peat-forming species, such as bog-mosses *Sphagnum* spp. and cotton-grasses *Eriophorum* spp., or purple moor-grass *Molinia caerulea* in certain circumstances, together with heather *Calluna vulgaris* and other ericaceous species. It is worth noting that the assessments of habitats being capable of reverting to bog are made within the context of the lifespan of the wind farm or potentially longer.

Outline Prescriptions

Prescription 1: Peatland restoration through increasing water levels

Peatland restoration within the MRMP Area will be achieved through utilisation of methods including gully reprofiling, ditch blocking and artificial dams. The number and type of dams installed and intervals between them will be dependent upon the ditch gradient, width, depth, flow, best practice guidance⁶ and the professional judgement of the experienced staff who undertake the work. It should

⁶ www.nature.scot/climate-change/taking-action/peatland-action/peatland-action-project-resources and www.nature.scot/sites/default/files/2019-03/Guidance-Peatland-Action-installing-peat-dams.pdf

be noted that understanding of best practice peatland restoration techniques continues to evolve and as such best practice guidance at the time of work being carried out will be taken into account. Restoration will focus on the most eroded area first, which is the area within Common Land Unit 94 (CL94) and Common Land Unit 99 (CL99).

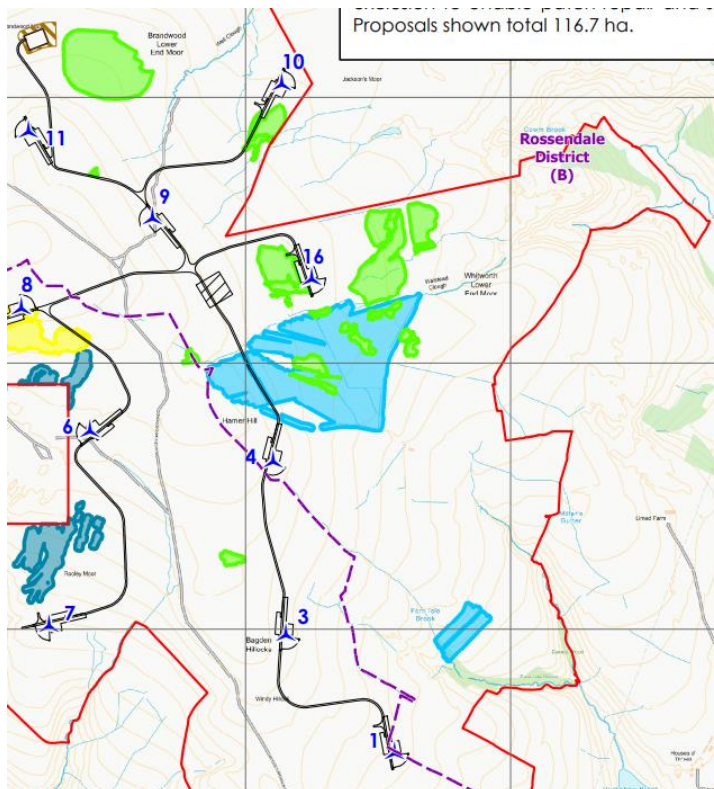
Throughout the process, hydrological management techniques will be assessed for their effectiveness through water table monitoring and, if required, strategies may be redesigned to increase rate and / or coverage of water table recovery.

The prescription measures below have been proposed following ground truthing and aerial mapping from the geology and hydrology teams and are based on ground conditions and peer reviewed literature.

Drain blocking and backfilling

Ditch blocking will be utilised across the MRMP Area, to encourage rewetting of the drained areas of peatland. The location of the drain blocking is shown in the excerpt below, and amounts to 22.2ha of restoration.

Image 4 Ditch Blocking Locations



Source: OWC Ltd., 2025

This will comprise blocking of drainage ditches to slow down the seepage of water from the peat mass, encourage rewetting, and to encourage restoration of the peatland habitats. The blocking must start from the highest point of the peatland and work successively downwards. Distance between blocks would be kept minimal to allow more effective retention of water and to decrease the flow at each block or dam.

- For drain blocking, each restoration location will be assessed individually on the ground by the ECoW and Peat Specialist.

- Toe protection measures will be required to hold in the peat (Stone dams will be used in preference over peat dams, sheet piles, coir rolls or heather bales).
- Catotelmic peat will be placed first within the artificial drain, followed by acrotelm turves.
- The difference in water levels downstream and upstream should be limited to <30cm to reduce pressure and keep the water table sufficiently high.

The need for surface protection such as biodegradable geotextile materials or the spreading of heather rich brash will be reviewed onsite.

For this rewetting to be successful, the water flow must be dispersed over a large area, not concentrated, and vegetation needs to be reestablished on bare peat surfaces.

Backfilling is an alternative to the dam / blocking process described above. Backfilling involves, instead of blocking or creating dams at certain points, instead entirely filling in a ditch or watercourse. It is the most effective method for rewetting peatland but would only be done in areas of significant drying. The best methodology to complete an entire ditch backfill is to use a large quantity of peat and lay turves on top.

Backfilling or gully blocking can also be used in areas of eroded peat to slow down and stop further erosions.

Peatland Turve reuse

Peatland habitats on the Application Site will be affected by the development through direct loss under the development footprint and through potential for indirect disturbance within 30m of permanent infrastructure. Habitats will be either permanently lost (buried under floating infrastructure), removed from under non-floating permanent infrastructure and used for reinstatement elsewhere onsite or removed from under temporary infrastructure, stored locally and reinstated following construction. A Peat Management Plan (PMP) has been prepared to support the development of the proposed Scout Moor II Wind. The PMP provides detailed information on avoidance of peat through design, excavation of peat and reuse of peat in relation to the development of the proposed Scout Moor II Wind. This PMP has identified peat cuttings which are suitable for restoration and this activity also forms part of the requirements of this outline MRMP in order to facilitate retention of sensitive blanket bog vegetation for reuse in peat cutting restoration.

In order to retain important peatland habitat features wherever possible within the Application Site, the following measures will be undertaken to facilitate restoration of peat cuttings:

- Further survey of vegetation within infrastructure micro siting allowances will be undertaken prior to construction in order to identify and if possible, avoid areas of sensitive habitat and sensitive plant species;
- Where it is not possible to avoid areas of sensitive habitat and sensitive plant species then vegetation from these areas will be translocated for use in restoration of peat cuttings on Site and as identified in the PMP;
- A translocation methodology will be produced as part of the final HMMP which will draw on the measures detailed in the PMP and best practice information available at the time. This will include, but not be limited to the following outline steps:
 - Methods for collection of material from the donor site, such as cutting turves to 0.3m thickness and ensuring sufficient peat soil to hold the roots in place;
 - Methods of material and vegetation storage prior to reinstatement at receptor sites, ensuring the minimum time period for storage and that conditions appropriate to viability of translocated material are in place;

- Actions to prepare the receptor site to receive translocated vegetation; and
- Monitoring of translocated vegetation to assess translocation success.

Peat turve and cutting translocation should only be used on bare peat, to encourage establishment of vegetated peat.

A number of fixed monitoring locations will be established within blanket bog communities across the MRMP Area, including within restored peat cuttings, with the aim being to monitor the long term condition of the Application Site through a programme of annual fixed point photography and quadrat monitoring.

This prescription method is counted as reinstatement instead of restoration but is still an essential prescription for this Outline MRMP as the methods of enhancing or restoring peatlands without existing peatland turves are limited and generally less successful.

Peat Reuse / Reinstatement Methodology

Peat reuse will be undertaken in the correct sequence to recreate the in-situ peat stratigraphy, with acrotelmic peat placed on top of catotelmic peat. Where excavated levels require, catotelmic peat will be placed first to form a surface lower than the proposed final ground level to accord with the thickness of turves available.

The acrotelm turves will then be placed, with their edges butted together to avoid bare peat sections. Protruding edges will be levelled, ensuring that the vegetation recovered with the turves forms a continuous surface.

The excavator forks will be used to press the turves into place to minimise the potential for voids to remain under the turves.

Following completion of turf replacement any gaps between turf edges will be filled with acrotelm peat which has been dislodged from the base of turves in storage areas and or vehicles. This will be undertaken by hand to avoid the need for placed turves to be tracked over.

Recreated slopes will be of a gradient of 1:3 or less. Peat will be restored to form a surface that interacts with the groundwater in a similar way to adjacent in situ peat by not being significantly raised above adjacent surfaces.

Reinstatement of vegetation will be focused on natural regeneration utilising vegetated turves and the existing seed bank. In the event that the quantity of excavated vegetated acrotelm turves is not sufficient, seed from locally growing grass and rush species will be spread over on these areas as a nurse crop.

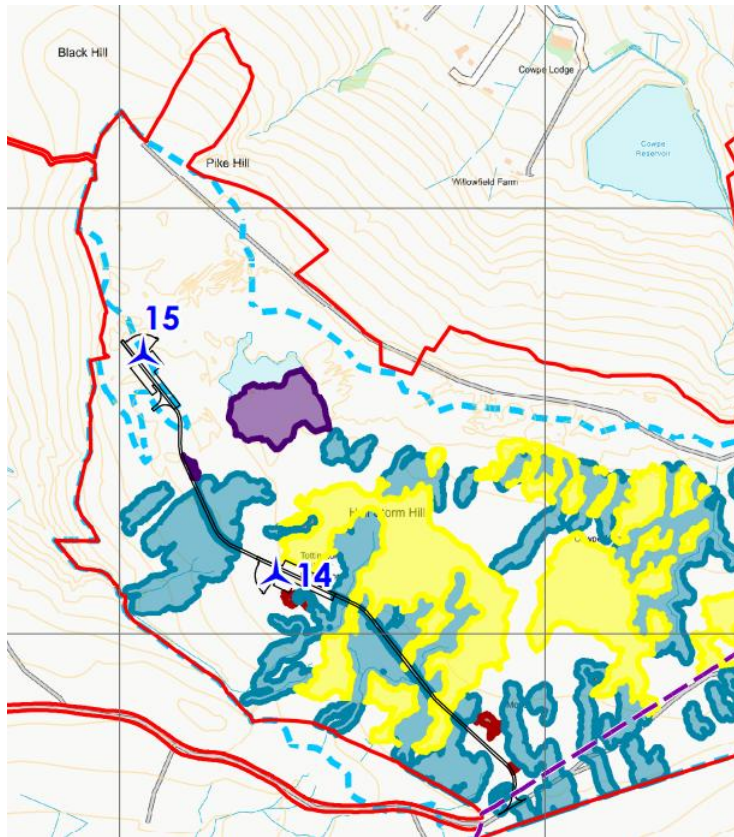
Seeds will be gathered between May and July when they are most abundant. Alternatively local providence seed will be purchased.

Seed will be spread manually where the areas are small or through the use of spreaders mounted on all-terrain vehicles (ATVs) as agreed with the Ecological Clerk of Works (ECoW).

It is likely that a biodegradable geotextile will be required to stabilise the bare peat surface and allow the seeds to germinate and establish. GeoJute or similar will be used.

The above method will be utilised in the western plateau of the Application Site, where the bog habitat has been quarried, leaving the small island of peat separate from the wider bog. The peat excavated as part of the construction will be reinstated in this area to rejoin the bog and create new peatland. This amounts to 2.7ha of new bog creation, shown by the purple area in the excerpt below.

Image 5 Bog Creation Area



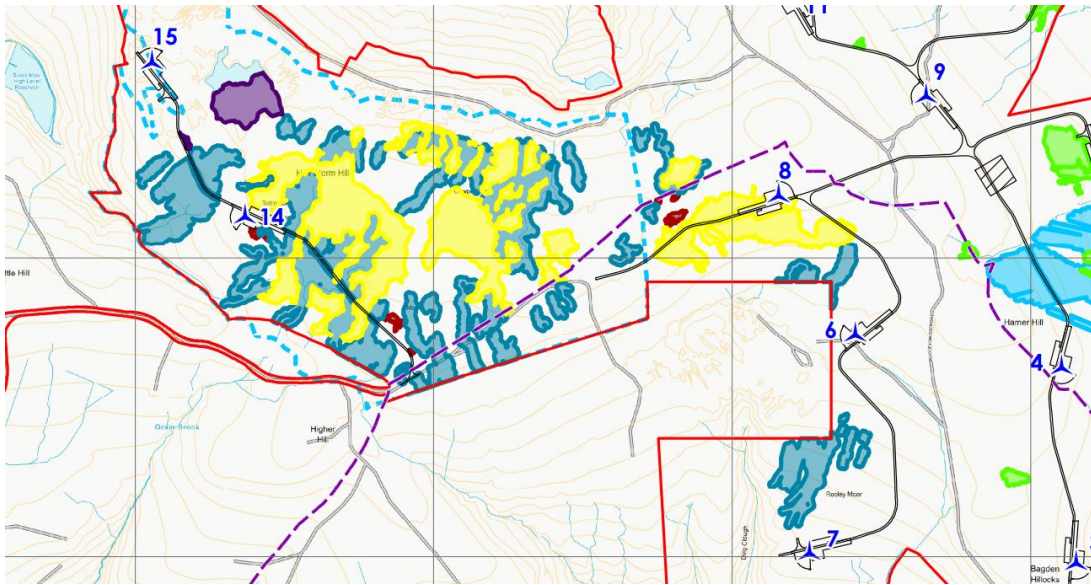
Source: OWC Ltd., 2025.

Gully reprofiling

Gully reprofiling would be used to prevent further erosion to the peatland. This can be combined with the gully blocking (see above). For this to be successful the cause of the erosion must be removed.

The vegetation would first be rolled back, with the root structure preserved. The peat would then be reprofiled to 30 – 35 degrees. Turves would be laid bridging the break in the slope at the top of the gully. The turves would be compacted once they have been laid. A large area of gully reprofiling has been identified in the western side of the Application Site, presented in the below excerpt in the dark blue shading, amounting to 43.3ha of restoration.

Image 6 Gully Reprofilng Areas



Source: OWC Ltd., 2025.

4.1.2 Increasing *Sphagnum* Diversity

Aim

To reduce the dominance of purple moor-grass across the Application Site and increase the presence and diversity of bog-mosses *Sphagnum* species.

Background and justification

Pilkington *et al.* (2021) state that “Blanket bogs are globally rare and a nationally protected UK Biodiversity Action Plan (BAP) priority habitat; increasing levels of domination by *Molinia* on these sites is a growing concern for conservationists because it can displace or exclude species, especially but not exclusively *Sphagnum* species, which are indicative of bog in ‘favourable’ and actively peat-building condition.” Their study examined whether the active planting of *Sphagnum* propagules reduced the dominance of purple moor-grass across three sites, whilst simultaneously increasing *Sphagnum* diversity. Furthermore they compared the cover of purple moor-grass and *Sphagnum* when only plug planting was used in addition to the combined effects from plug planting with purple moor-grass flailing and flailing followed by windrowing. The study found that plug planting did lead to an initial increase in *Sphagnum* cover from 1% to 16% within the first year; however, their research did show a plateauing in later years. Their conclusions stressed the importance of increasing the water table to facilitate successful propagation of *Sphagnum*; highlighting the necessity of combining plug planting with the methods detailed in Section 4.1.1 above.

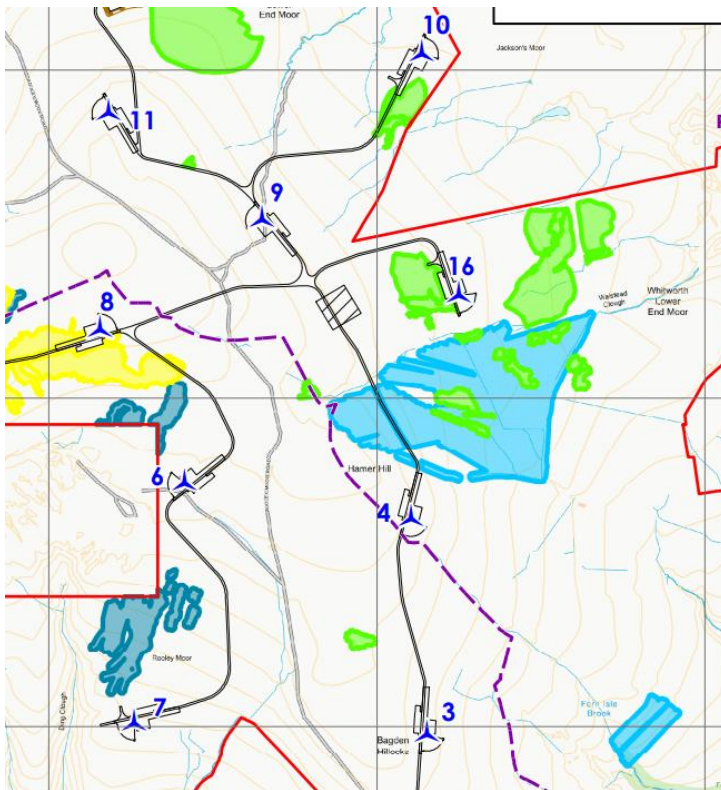
Pilkington *et al.* (2021) did not find conclusive evidence that flailing or windrowing reduced the cover of purple moor-grass beyond a temporary setback, and there is currently no known effective measure for controlling this species in blanket bog habitat. Therefore a combined approach is proposed utilising the drainage measures within Section 4.1.1 along with plug planting, flailing and windrowing.

Outline Prescriptions

Prescription 2: Increasing the cover and diversity of *Sphagnum* species through controlling purple moor grass and undergoing plug planting.

Following the methods detailed within Pilkington *et al.* (2021), *Sphagnum* propagules in the form of plugs will be hand planted in mid-summer within the flattest areas ($<3^\circ$) found in the priority peatland restoration areas shown on the restoration figure and the excerpt below (yellow and green hatched areas); totalling 18.4 ha in the eastern area (green hatching) and 29.3ha in the western area (yellow hatching), 47.7ha total.

Image 7 Plug Planting Areas



Source: OWC Ltd., 2025.

A mix of species will be used, with suggested *Sphagnum* species provided at Appendix D. It should be noted that it can take approximately 12-24 months to grow to order *Sphagnum* plugs, particularly if deriving these plugs from local seed stock, thus this delay will be considered in the programme. However, where local stock is available earlier, this would be used wherever practical. Consideration of the amount of available stock at a given point, in tandem with identification of an ecologically coherent area to restore, will be required when considering this phased approach.

Each plug will be planted using a long-handled dibber to make a hole that will be subsequently closed around the plug to ensure that each plug is anchored and in contact with moist peat.

Flailing and windrowing would be completed in autumn, with flailing done by using a mechanically powered and rapidly rotating system of metal scallops which will be set low enough to cut the vegetation as well as the surface rooting structure. Windrowing would be achieved by hand-raking the flailed material (mulch) into lines approximately 5m apart immediately after flailing.

4.1.3 Natural Regeneration of Vegetation

Aim

To enable natural regeneration of vegetation with particular focus on active blanket bog species such as heather and bog mosses.

Background and Justification

The moor currently has a very low species diversity and is dominated by purple moor-grass which is limiting the growth of other key moorland species. In restoration areas, the moorland will be protected to allow natural regeneration of vegetation by excluding stock and vehicle access.

Outline Prescriptions

Prescription 3: Natural Regeneration of Vegetation

To enable natural regeneration of vegetation within the Application Site it will be necessary to implement an exclusion for stock in the controlled restoration areas; totalling 18.4ha. This would include stock proof fencing around these areas, which would stop access from public vehicles as well as the stock.

In areas where the species diversity is low, seeding and plug plants may be used in protected areas, with the use of heather brush on bare peat. Appendix B and C provides an indicative list of species that could be utilised. Ideally, these would be of local provenance or where this is not possible, English/UK provenance.

Plug planting and spot turving has been proposed for areas where vegetation cover has been compromised and locally bare patches are present, the planting of *Sphagnum* plugs will help reinstate bog forming communities in the west of the Application Site. Where areas of bare peat are too large to be effectively treated with plugs, spot turving (translocation of vegetation) will be used.

Grazing and farmland operations

Whilst it is understood that there is a low stocking density of sheep, the timing of grazing could have a significant impact on restoration areas. For example, grazing in the winter months can be particularly deleterious to some bog and heath vegetation and result in compositional change in the plant community, especially at high stocking rates.

The restoration strategy will have an impact on grazing levels within restoration areas as recommended stocking densities for target blanket bog are low, at less than 0.02 Livestock Units (LUs)/Ha/Yr. *Sphagnum* plug planting in tandem with ditch blocking is vulnerable to grazing and trampling. Livestock will be excluded from restoration areas and annual monitoring undertaken to determine success within the first 8 years. If the habitat is successfully establishing, livestock would be reintroduced at that time to increase the density of grazing. Grazing levels will be low during the operational lifespan of the wind farm in these areas, only up to 0.4 sheep per ha (IUCN UK Committee Peatland Programme: briefing Note 7: Grazing and Trampling). These levels could be varied following an Herbivore Impact Assessment in a future version of the HMP.

Whilst traditional restoration areas will be fenced off, outside of these areas stock on *Molinia* grasslands could remain higher at 0.25 LU/ha/yr and higher still during March, April and May (0.5 to 1 head cattle/ha or 6 ewes/ha) to reduce the cover of *Molinia*. *Molinia* is indicative of drying out, lowering of water tables, is not actively peat-forming and its spread therefore limits carbon sequestration capacity (unlike active bog) so this measure will be incorporated into future management and repeated each year, out with restoration areas.

4.1.4 Monitoring the effect of the Proposed Development

Aim

To ensure the effect of the development of the proposed Scout Moor II Wind is measured, understood and monitored, with appropriate feedback mechanisms.

Background and Justification

To ensure that the basis for consent is discharged and that an enhancement and significant biodiversity net gain is achieved.

Outline Prescriptions

Prescription 4: Post-construction habitat monitoring through a programme of fixed-point photography and quadrat monitoring to document habitat restoration progress.

Although the effect of wind farms on flora and fauna is relatively well understood, it is important that models and understanding of the effect are continuously refined in order to inform future developments.

In order to assess the effectiveness of the habitat restoration post construction, with the aim being to monitor the long-term condition of the proposed wind farm development, a programme of fixed-point photography and quadrat monitoring in Years 1, 3 and 5 will be in place. The monitoring will be used to assess the effectiveness of the MRMP and HMMP, which will be updated to reflect this survey data. This survey work will be the responsibility of Cubico (or SIT). Following Year 5 the need for, and frequency of, further monitoring will be agreed with the HMG – see prescription 4.1.5 below; the frequency of surveys, which will be dependent on factors including how successful establishment has been and other land-use pressures, such as grazing densities. Habitat monitoring will apply to ‘drains’ (i.e. bog) and bog restoration/creation areas as shown on Figure 9-8 considering the following criteria, as derived from McDonald *et al.* (1998), collecting a number of quantitative measures based upon that methodology namely:

- Common heather cover;
- Heath cover *Erica spp.* cover;
- Bilberry cover;
- Sphagnum/bryophyte cover;
- Intensity of common heather & bilberry browsing (recorded using classification categories of Low/Med/High);
- Stem breakage;
- Bryophyte depth;
- Trampled bare ground;
- Dung presence (from large herbivores);
- Dung pellets per 100 m²;
- Average height of dwarf shrubs;
- Common heather age class;
- National Vegetation Classification (NVC) community; and
- Evidence of herbivores, such as burrows, warrens, runs, prints, etc.

In addition, a dipwell will be placed into each of the quadrats to measure the water table.

Monitoring of the actual peatland restoration features will also be undertaken to check the integrity of the features and record any issues of further work requirements. If features are not performing correctly, remedial measures may be required e.g. increasing dam frequency.

If the peatland habitats are not recovering as expected following the above interventions, following the monitoring survey and submission of the report to the Habitat Management Group (see below), an updated MRMP would be provided by Cubico (or SIT) and will be submitted to the LPA and HMG for approval. The updated MRMP will contain details of further works to achieve the targets set out in this document.

4.1.5 Habitat Management Group

Aim

Provision of oversight mechanism and peer review opportunities to discuss the need for corrective actions (e.g. changes to current measures), how and when to implement them.

Background and Justification

Following consent, a habitat management group (HMG) will be established.

The HMG would be established and funded by Cubico (or SIT) with its formation, membership, terms of reference and constitution to be secured by legal agreement (pursuant to Section 106 of the Town and Country Planning Act). The HMG would be established and funded for the duration of the wind farm or until the HMG confirms that the restoration works have been successfully implemented (whichever is the sooner).

Outline Prescriptions

Prescription 5: Establishment of a Habitat Management Group and Ecological Clerk of Works

The HMG will be established by the Applicant prior to construction commencing and will ensure that prescriptions are enacted in a timely manner and the results communicated back to stakeholders.

The HMG would include representatives from Cubico (or SIT), Greater Manchester Ecological Unit (GMEU), Natural England (if they wish to be involved) and any landholders with a vested interest.

An Ecological Clerk of Works will be appointed and would oversee all operations. In accordance with good land management practice, a register of management works undertaken on Site will be maintained to monitor that such works are consistent with the agreed objectives of the MRMP.

A technical report will be produced by Cubico (or SIT) at the end of each year in which habitat management prescriptions have been undertaken. This will be submitted to the HMG for review and include the results of the fixed point photography and quadrant mapping referred to above in relevant years.

The HMG will be responsible for reviewing the findings of all prescribed monitoring as part of the habitat management programme and for requiring further refinement of the MRMO is considered necessary including any remedial works.

Cubico (or SIT) will be responsible for the funding and implementation of the HMG. Ad hoc communication with the HMG including the distribution of any interim or monthly reports would be undertaken by email.

The HMG will meet annually for the first 5 years to ensure that the aims are progressing and to assess if any other factors have had an adverse or positive effect on the Application Site that were not considered. The minutes of these meetings will be communicated back to stakeholders. After

the initial 5-year period, results from monitoring carried out in years 10 and 15 will be communicated to the HMG.

The completion of the programme of monitoring, reporting and as necessary remedial work / adjustment of the MRMP will be secured by legal agreement pursuant to Section 106 of the Town and Country Planning Act 1990.

4.2 Community Restoration

Areas of the wider moorland under common land control will be restored via the community restoration prescriptions. These do not include prescriptions which would infringe on the Common Land rights, therefore no fencing or stock exclusion will take place in these areas.

A majority of the main common is dominated by purple moor grass and the works in this area will focus on reducing the amount of purple moor grass to allow other species to grow.

Traditional peat restoration areas are sensitive to stock pressures and require fencing, so outside of the fenced areas there are limited prescriptions that could be utilised. For the wider common it is proposed to use an amended approach to **Prescription 2**, focusing only on the removal of purple moor grass in the Common Land areas.

Once a year the wider common will be flailed, possibly accompanied by wind rowing and the arisings removed from the common. This can be done in agreement with the graziers and commoners and would be done outside of the nesting bird season to remove risk to sensitive bird species. This will also result in a reduced fire risk across the Application Site.

The HMG and monitoring regimes stated above will also be involved in the community restoration areas to ensure these areas are also restored and managed as required.

As the area has shown signs of being under grazed, no stocking controls will be introduced.

The damage by illegal off road vehicles cannot be stopped via fencing for the Community Restoration areas, and so it is proposed to dissuade this activity via provision of educational elements such as information boards, community outreach and encouragement to use other sites where off-roading is permitted. Cubico will work with the local authorities to develop an integrated approach to manage the off-roading with the police and the HMG.

Once the exclusion is removed from the controlled restoration areas (following agreement with the HMG and sufficient evidence that the peatland has established) the whole moorland will eventually come under Community Restoration and will be managed holistically.

4.2.1 Stewardship Scheme

As part of the moorland restoration strategy, a structured programme of stewardship works will be developed and delivered in close partnership with the local commoners and land managers.

As part of this a 'Steward' or 'Ranger' role will be introduced which will include the management of trails, controlling access (including that which is unlawful) and to provide educational opportunities.

4.3 Prescription Summary

Table 12 summarises the outline prescriptions and proposed monitoring schedules. Prescription 4 is not included as this prescription feeds into the monitoring requirements in column 3.

Table 12: Outline Prescriptions and Proposed Monitoring Schedules

ID	Target Feature	Survey Type	Timing	Programme	Responsibility
Prescription 1	Peatland restoration through increasing water levels	Plot Monitoring	Summer	During construction	Applicant / Suitably Qualified Ecologist
Prescription 2	Increasing Sphagnum diversity and reduction in purple moor grass	Fixed point photography and quadrat monitoring/Plot monitoring	Summer	Throughout lifespan of project	Applicant / Suitably Qualified Ecologist
Prescription 3	Peatland habitat enhancement through natural vegetation regeneration	Fixed point photography and quadrat monitoring/Plot monitoring	Summer	Throughout lifespan of project	Applicant / Suitably Qualified Ecologist
Prescription 5	Habitat Management Group and Ecological Clerk of Works (ECoW)	Meetings with concerned parties Plot monitoring	Year round	Annually Years 1-5	Applicant / Suitably Qualified Ecologist

5. Conclusions

This MRMP has presented the current baseline of the moorland habitats, and confirmed that it is currently in degraded, or poor condition. This is due to a number of reasons, including unmanaged grazing, off-road vehicle damage, historic burning and localised peat erosion and gullying.

The combination of the above factors have led to an overall degraded habitat, with large areas of bare, eroding peat, dominated by purple moor grass which does not offer suitable grazing for sheep.

Whilst the peatland habitats present within the areas to be lost to development of the proposed Scout Moor II Wind are Habitats of Principal Importance (HPI), their degraded state limits the current conservation value of these habitats.

The degraded peatland has a wider impact in terms of carbon sequestration and water quality as well as impacts on the habitat as a whole.

The MRMP approach includes splitting the MRMP area into two clear restoration programmes, with areas to be fenced and managed as ‘controlled restoration’ and those within common land to be managed as ‘community restoration’, alongside the graziers and people who depend on the moorland. This approach enables the local people to be involved in the management and enhancement of the moorland, whilst also protecting specific areas for more intense and controlled management.

The outcome of this approach is a moorland in improved condition, with reduced pressures. The improvements are also considered to increase the attractiveness of the area and encourage people in the local area to make use of the existing footpaths.

The MRMP has been designed to provide a significant benefit for the area. It aims to enhance the current condition of the moorland whilst also being mindful of the vested interests of the moor and the importance of retaining open access where possible.

The development of the HMG and condition monitoring regime will ensure that the progress of the MRMP is documented and controlled and fenced areas will only allow stocking once the moorland has been recorded as restored and the vegetation has been established.

6. References

- Brown, A. F. and Shepherd, K. B. (1993). A method for censusing upland breeding waders. *Bird Study*, 40:3, 189-195.
- IUCN (2014). UK Committee Peatland Programme Briefing Note No. 7: Grazing and Trampling. <https://www.iucn-uk-peatlandprogramme.org/sites/www.iucn-uk-peatlandprogramme.org/files/7%20Grazing%20and%20trampling%20final%20-%205th%20November%202014.pdf>.
- Mills, A.J. and Rushton, D. 2023. A risk-based approach to peatland restoration and peat instability. NatureScot Research Report 1259. <https://www.nature.scot/doc/naturescot-research-report-1259-risk-based-approach-peatland-restoration-and-peat-instability#4.4.+Assessment+of+effects+of+restoration+techniques>
- NatureScot (2017-18). Peat Depth Survey Guidance. <https://www.nature.scot/sites/default/files/2018-03/Guidance-Peatland-Action-Peat-depth-survey-2017-18.pdf> Accessed November 2024.
- NatureScot (2022). Peatland Action Technical Compendium. November 2022. <https://www.nature.scot/doc/peatland-action-technical-compendium>. Accessed November 2024.
- NatureScot (2023). Advising on peatland, carbon-rich soils and priority peatland habitats in development management. November 2024. <https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management> Accessed November 2024.
- NatureScot (2023b). Planning and development: Enhancing biodiversity. <https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-enhancing-biodiversity> Accessed November 2024.
- Pilkington, M., Walker, J., Fry, C., Eades, P., Meade, R., Pollett, N., Rogers, T., Helliwell, T., Chandler, D., Fawcett, E., & Keatley, T. (2021). Diversification of *Molinia*-dominated blanket bogs using *Sphagnum* propagules. *Ecological Solutions and Evidence*, e12113. <https://doi.org/10.1002/2688-8319.12113>
- Rodwell, J. (eds.) *British Plant Communities*, Cambridge University Press, 5 vols., published 1991 – 2000).
- SEPA (2024). Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems. Scottish Environment Protection Agency.

7. Figures

Figure 1: Restoration and Management Areas

Figure 2: NVC Survey Results

Figure 3: Peatland Restoration Measures

Appendices



Appendix A. Images and further details

Table 13: Site photographs and further details.

Description	Photograph
M25a <i>Molinia caerulea</i> – <i>Potentilla erecta</i> mire, <i>Erica tetralix</i> sub-community.	

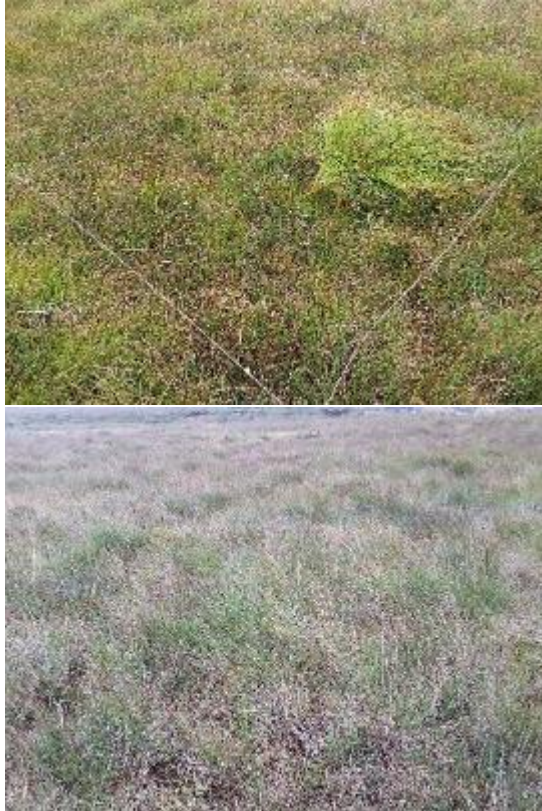
Description	Photograph
	
M25b <i>Molinia caerulea</i> – <i>Potentilla erecta</i> mire, <i>Anthoxanthum odoratum</i> sub-community.	

Description	Photograph
	
M20 <i>Eriophorum vaginatum</i> blanket and raised mire.	

Description	Photograph
	
M3 <i>Eriophorum angustifolium</i> bog pool.	

Description	Photograph
	
Mosaic between M20 <i>Eriophorum vaginatum</i> blanket and raised mire and M3 <i>Eriophorum angustifolium</i> bog pool.	

Description	Photograph
M6c <i>Carex echinata</i>-<i>Sphagnum recurvum/auriculatum</i> mire, <i>Juncus effusus</i> sub-community.	

Description	Photograph
M17 <i>Trichophorum germanicum</i> – <i>Eriophorum vaginatum</i> blanket mire.	

Description	Photograph
H18a <i>Vaccinium myrtillus</i> - <i>Deschampsia flexuosa</i> heath, <i>Hylocomium splendens</i> – <i>Rhytidiadelphus loreus</i> sub-community.	

Description	Photograph
H12 <i>Calluna vulgaris</i> - <i>Vaccinium myrtillus</i> heath.	
Peat noted to be greater than 1m in depth between TN21 and T36.	

Description	Photograph
Eroded peat within M3 <i>Eriophorum angustifolium</i> bog pool.	

Description	Photograph
Peat damaged by vehicles near TN19 and TN20 in the west of the Site.	

Description	Photograph
Damaged peat from erection of pylon near TN27.	
Area of M25 <i>Molinia caerulea</i> –<i>Potentilla erecta</i> mire with recent evidence of burning, causing purple moor-grass to die back.	

Description	Photograph
Heath star-moss <i>Campylopus introflexus</i> present in quadrat 28 (Easting: 385224, Northing: 419303) within M20 <i>Eriophorum vaginatum</i> blanket and raised mire. This is an invasive species .	
Lemon-scented fern <i>Oreopteris limbosperm</i> present on slope near TN9-TN12.	

Appendix B. Moorland Planting List

Table 14: Moorland Suggested Species List

Species	Guidance / target location
Bell heather <i>Erica cinerea</i>	Dry areas in target locations
Bilberry <i>Vaccinium myrtillus</i>	Ideal species to plant in areas of soil erosion
Bog Asphodel <i>Narthecium ossifragum</i>	Wet areas with high levels of peat in the soil
Bog myrtle <i>Myrica gale</i>	Wet areas
Common Cotton-grass <i>Eriophorum angustifolium</i>	Wet areas
Common Heather <i>Calluna vulgaris</i>	All areas
Cowberry <i>Vaccinium vitis-idea</i>	All areas
Cross-Leaved Heath <i>Erica tetralix</i>	Wet areas
Crowberry <i>Empetrum nigrum</i>	Wet areas where peat soils are prevalent (ideal species to remediate areas of erosion)
Hare's-tail Cotton-grass <i>Eriophorum vaginatum</i>	Wet areas
Heath bedstraw <i>Galium saxatile</i>	All areas
Heath Rush <i>Juncus squarrosus</i>	All areas
Heath violet <i>Viola riviniana</i>	All areas
Jointed Rush <i>Juncus articulatus</i>	Wet areas
Marsh Violet <i>Viola palustris</i>	All areas
Sharp-Flowered Rush <i>Juncus acutiflorus</i>	All areas
Sheep's Sorrel <i>Rumex acetosella</i>	All areas
Compact Bog-moss <i>Sphagnum compactum</i>	Wet areas with high levels of peat in the soil
Pale Bog-moss <i>Sphagnum strictum</i>	Wet areas with high levels of peat in the soil

Tormenil *Potentilla erecta*

All areas

Appendix C. Suggested proportions of *Sphagnum* species for plug planting

Table 15: Proportions of *Sphagnum* species to be used in plugs

<i>Sphagnum</i> Species	Proportion (%)
<i>S. fallax</i>	30-50
<i>S. palustre</i>	20-40
<i>S. papillosum</i>	20-40
<i>S. capillifolium</i>	10
<i>S. cuspidatum</i>	10
<i>S. fimbriatum</i>	5-10
<i>S. subnitens</i>	5-10
<i>S. denticulatum</i>	1
<i>S. squarrosum</i>	1
<i>S. tenellum</i>	1
<i>S. medium</i>	1
<i>S. russowi</i>	1

Source: Pilkington et al. (2021)