Mynydd-Fforch-dwm Wind Farm

On behalf of REG Power Management

Summary Report: Habitats and Vegetation

avianecology

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1 INTRODUCTION

1.1.1 This Summary Report has been prepared for the Mynydd Fforch-dwm Wind Farm (the proposed development). It will be adapted into a Technical Appendix as part of the application for the proposed development.

1.1.2 It presents detailed methodologies, desk study and field surveys completed to establish baseline habitat conditions and should be read with reference to the following figures:

- **Figure 1** – Phase 1 habitat plan; and
- **Figure 2** – National Vegetation Classification (NVC) survey plan.

2 METHODOLOGY

2.1 Objectives

2.1.1 The objectives of the baseline studies were to:

- Establish the spatial distribution of habitats and vegetation communities which may be impacted by the proposed development; and
- Identify the presence and distribution of potential Groundwater Dependent Terrestrial Ecosystems for (GWDTEs) for subsequent hydrological assessment.

2.2 Desk Study

2.2.1 The desk study has included a review of the following key sources summarised in **Table 2.1.**

2.2.2 Additional peer reviewed literature and industry guidance, has also been reviewed and is referred to where relevant.

Table 2.1: Desk study key sources and information sought.

Key Source	Date of Consultation	Information Sought	Study Area
Multi-Agency Geographic Information for the Countryside (MAGIC) http://magic.defra.gov.uk/	June 2020	Identify existing habitat data.	Within Site and adjacent habitats.

2.3 Field Surveys

Key Guidance

2.3.1 Survey methodologies and subsequent interpretation of results have made reference to the following key piece of guidance:

- JNCC (2010) *Handbook for Phase 1 Habitat Survey - a technique for environmental audit.* Revised Reprint 2010. Joint Nature Conservation Committee, Peterborough.
- Rodwell, J. S. (2006) *National Vegetation Community Users' Handbook*. JNCC, Peterborough.
- NatureScot (2020) General pre-application and scoping advice for onshore wind farms.

2.3.2 The following surveys have been completed:

- Phase 1 habitat survey (2015);
- NVC survey (2015); and,
- Habitat validation surveys (2019 and 2021).

Phase 1 Habitat Survey

2.3.3 A Phase 1 habitat survey was undertaken 22nd June 2015.

2.3.4 The survey was undertaken in accordance with the UK industry standard Joint Nature Conservation Committee (JNCC) Phase 1 Habitat Methodology (JNCC, 2010).

2.3.5 During the survey all habitats within the Site (and adjoining habitats where accessible) were mapped according to industry standards, with the use of descriptive target notes ('TN'; if required). For the purposes of this report, it is termed the 'survey area'.

2.3.6 On 1st August 2019 and 26th July 2021 validation walkover surveys were undertaken to determine whether habitats within the survey area were consistent with the results of the 2015 survey.

National Vegetation Classification (NVC) Survey

2.3.7 A NVC survey was undertaken on 16th June 2015 following the guiding principles detailed within the 'National Vegetation Classification: User's Handbook' (Rodwell, 2006).

2.3.8 The NVC survey area comprised all noteworthy habitats within the survey area used for the Phase 1 habitat survey.

2.3.9 Within the survey area, areas were selected for NVC survey based on the presence of homogenous stands of vegetation and focusing on priority habitats on Section 7 of the Environment (Wales) Act 2016 of potential nature conservation value, as identified during the initial Phase 1 habitat survey.

2.3.10 The following habitat types as identified during the Phase 1 habitat survey, to be included for NVC survey were:

- Marshy grassland (B5);
- Semi-improved neutral grassland (B2.2);
- Semi-improved acid grassland (B1.2);
- Wet modified bog (E1.7); and
- Acid/neutral flush (E2.1).

2.3.11 The following habitats excluded from NVC survey because they were considered unlikely to form noteworthy habitats included:

- Poor semi-improved grassland (B6);
- Broad-leaved semi-natural woodland (A1.1.1);
- Coniferous semi-natural woodland (A1.2.1);
- Coniferous plantation woodland (A1.2.2);

- Mixed plantation woodland (A1.3.2);
- Recently felled woodland/coniferous plantation (A4.2);
- Tall ruderals (C3.1); and
- Bracken (C1).

2.3.12 NVC square quadrats of size $2m^2$ were distributed throughout homogenous stands identified in order to provide a representative sample of the vegetation community present. In each quadrat sample area, data was collected on the presence and abundance of vascular plant species using the Domin scale. These data were then analysed and classified to an NVC vegetation community, where possible, using the keys in Rodwell British Plant Communities Volumes 1 to 5[1,2,3,4,5].

2.3.13 On 1st August 2019 and 26th July 2021 validation walkover surveys were undertaken to determine whether habitats within the survey area were consistent with the results of the 2015 survey, and thus whether the same habitats were subjected to a NVC survey.

Personnel

2.3.14 The Phase 1 habitat survey and NVC survey in 2015 (and validation survey in 2021) was carried out by Mr C. Davies; who is a competent botanist with experience of undertaking habitat surveys, including NVC surveys, in such habitats.

2.3.15 The validation habitat survey in 2019 was conducted A. Hulme BSc (Hons.) who is a competent botanist with experience of undertaking habitat surveys in such habitats.

3 RESULTS

3.1 Desk Study

Existing Notable Habitat Records

3.1.1 The desk study of MAGIC did not identify any records of notable habitat types within the survey area. The only habitats returned from MAGIC were woodland habitats (including conifer woodland, young trees and felled woodland) and these were on the periphery of the survey area.

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[1] Rodwell, J. S. (ed.) (1991) *British Plant Communities. Volume 1. Woodlands and scrub.* Cambridge University Press, Cambridge.

[2] Rodwell, J. S. (ed.) (1993) *British Plant Communities. Volume 2. Mires and Heaths*. Cambridge University Press, Cambridge.

[3] Rodwell, J. S. (ed.) (1992) *British Plant Communities. Volume 3. Grasslands and montane communities*. Cambridge University Press, Cambridge.

[4] Rodwell, J. S. (ed.) (1995) *British Plant Communities. Volume 4. Aquatic communities, swamps and tall-herb fens.* Cambridge University Press, Cambridge.

[5] Rodwell, J. S. (ed.) (2000) *British Plant Communities. Volume 5. Maritime communities and vegetation of open habitats.* Cambridge University Press, Cambridge.

3.2 Field Surveys

Habitats

3.2.1 This section presents the results of baseline field surveys, including an overview of habitat types present within the survey area and their distribution. The habitats between 2015 and 2019 were typically consistent, with for example, only minor changes in the extent of bracken coverage between the survey years. The Phase 1 habitat survey plan and NVC survey plan shown in **Figure 1 and Figure 2** respectively provide the updated (2019 and 2021) habitat types within the survey area. The habitat descriptions provided below refer to the results of the 2015 and 2019 surveys. Note, habitat descriptions in 2021 were consistent with 2019, with no differences identified between the two survey years.

3.2.2 Detailed species lists and Domin scores relating to each distinct community are presented in **Annex 1** and **2**. Photographs and representative habitat descriptions are provided in **Annex 3**.

3.2.3 The survey area is dominated by semi-improved acid grassland (B1.2) and semi-improved neutral grassland (B2.2), with woodland habitats, principally coniferous woodland plantation (A1.2.2) on the periphery of the survey area. There were blocks of other woodland habitats in the survey area, and this included a long strip of mixed planation woodland (A1.3.2) in the north-west and copses of broad-leaved semi-natural woodland (A1.1.1) and coniferous semi-natural woodland (A1.2.1) in the south.

3.2.4 There are three notable streams which flow through the survey area, with Nant Cwm-y-pant in the south-west, Nant y Cywion in the north-east and Nant Blaenpelenna in the north-west.

3.2.5 Other habitats present in the survey area included areas of marshy grassland (B5), wet modified bog (E1.7) and acid/neutral flush (E2.1) predominantly in the east of the survey area. Bracken (C1) was also scattered within the semi-improved acid grassland in the west of the survey area, with small pockets of continuous bracken particularly along field edges.

3.2.6 There are two ponds within the survey area, with a large waterbody (used to filter out contaminated mine-water before it flows into the River Polenna) to the south-west of the Site; and an almost fully dried out pond in the south of the Site, on the edge of a field of semi-improved grassland (TN1 on **Figure 1**).

3.2.7 No protected or notable plant species were recorded within the survey area.

3.2.8 The following habitats are those identified during the Phase 1 habitat survey as being included for the NVC survey.

Marshy grassland

3.2.9 The best community match for marshy grassland within the survey area is **M23b *Juncus effusus* - *Galium palustre* rush - pasture with *Juncus effusus* sub-community**.

3.2.10 The community is dominated by soft rush *Juncus effusus* and large hummocks of fringed bog-moss *Sphagnum fimbriatum*, with lesser amounts of *Polytricum commune*, purple moor-grass *Molinia caerulea*, sheep's fescue *Festuca ovina* and wavy hair-grass *Deschampsia flexuosa*.

3.2.11 The community occurs mostly in the eastern part of the survey area and is typically adjacent to bogs and streams.

Semi-improved neutral grassland

3.2.12 The best community match for the semi-improved neutral grassland within the survey area is **MG6 *Lolium perenne - Cynosurus cristatus* grassland *Anthoxanthum odoratum* sub-community**.

3.2.13 The community is dominated by white clover *Trifolium repens*, common sorrel *Rumex acetosa*, daisy *Bellis perennis*, annual meadow-grass *Poa annua*, sweet vernal-grass *Anthoxanthum odoratum*, creeping buttercup *Ranunculus repens* and Yorkshire-fog *Holcus lanatus*, with occasional marsh foxtail *Alopecurus geniculatus* and autumn hawkbit *Leontodon autumnalis*.

3.2.14 This community forms a large part of the centre of the survey area, and is used for livestock grazing.

Semi-improved acid grassland

3.2.15 The best community match for the semi-improved acid grassland within the survey area is **U6 *Juncus squarrosus - Festuca ovina* grassland**.

3.2.16 The community is dominated by heath rush *Juncus squarossus*, mat-grass *Nardus stricta* and sheep's fescue, with the mosses *Polytrichum commune* and *Rhytidiadelphus squarrosus* abundant. The dominance of heath rush is an indication of the heavy grazing of other more palatable plants.

3.2.17 This is a dominant community within the survey area, and is used for livestock grazing.

Wet modified bog

3.2.18 The best community match for the wet modified bog within the survey is **M20 *Eriophorum vaginatum* blanket bog**.

3.2.19 The community is dominated by hare's-tail cotton-grass, with purple moor-grass. The latter species, although covering large parts of the community is generally small and stunted and subservient to the cottongrass. Bryophytes are represented by four species of sphagnum, particularly *S. subnitens* and *S. inundatum*, as well as *Polytrichum commune*. Preliminary peat depths were taken and varied between 0.5 – 1m.

3.2.20 This community is located in the east of the survey area, and is adjacent to the main marshy grassland habitats.

Acid/neutral flush

3.2.21 There are two areas of flush/mire habitat.

3.2.22 One of the flush/mire areas is located on the junction of the meeting point of two watercourses in the east of the survey area. The best community match for this acid/neutral flush is **M6b *Carex echinata - Sphagnum fallax* mire *Carex nigra - Nardus stricta* sub-community**.

3.2.23 This community is dominated by *Sphagnum fallax*, and in many places the species has almost total coverage with just small spikes of star sedge *Carex echinata* poking through or occasional round-leaved sundew *Drosara rotundifolia*, bog asphodel *Narthecium ossifragum* or bulbous rush *Juncus bulbosus*. Mat-grass and purple moor-grass are the only constant grasses, but these have low coverage and are in stunted forms.

3.2.24 The second flush/mire area is located north-east within the survey area. The best community match for this acid/neutral flush is **M4 *Carex rostrata - Sphagnum fallax* mire**.

3.2.25 This community is dominated by bottle sedge *Carex rostrata* and common cottongrass *Eriophorum angustifolium*, with some scattered star sedge. There are patches of open water within this

community, and bog pondweed *Potamogeton polygonifolius* is present in small amounts, as well as bogbean *Menyanthes trifoliate*.

Summary

3.2.26 Vegetation communities present within the survey area are summarised in **Table 3.1**, along with corresponding Habitats Directive (92/43/EEC) Annex 1 Habitat types and Ground Water Dependant Terrestrial Ecosystems (GWDTE) status in accordance with SNIFFER (2009[6]), SEPA guidance (2017[7]) and European Commission manual (2013[8]).

Table 3.1: Summary of vegetation communities.

NVC community	Principle corresponding Habitats Directive Annex I type/s	Dependence of community/ habitat on groundwater. 1=High, 2=Moderate, 3=Low
M23b *Juncus effusus - Galium palustre* rush - pasture with *Juncus effusus* sub-community	None directly applies	1
MG6 *Lolium perenne - Cynosurus cristatus* grassland *Anthoxanthum odoratum* sub-community	None directly applies	3
U6 *Juncus squarrosus - Festuca ovina* grassland	None directly applies	2
M20 *Eriophorum vaginatum* blanket bog	Blanket bog	3
M6b *Carex echinata - Sphagnum fallax* mire *Carex nigra - Nardus stricta* sub-community	None directly applies	1
M4 *Carex rostrata - Sphagnum fallax* mire	Transition mires and quaking bogs	3

[6] Scotland and Northern Ireland Forum for Environmental Research (SNIFFER, 2009) WFD95: *A Functional Wetland Typology for Scotland – Field Survey Manual.* Version 1.

[7] Scottish Environment Protection Agency (SEPA, 2017*) Land Use Planning System: SEPA Guidance Note 31.* Guidance on assessing the impacts of development proposals on groundwater abstractions and groundwater dependent terrestrial ecosystems. Version 3.

[8] European Commission (2013) *Interpretation manual of European Union habitats*. EUR 28. April 2013.

FIGURE 1: PHASE 1 HABITAT SURVEY PLAN

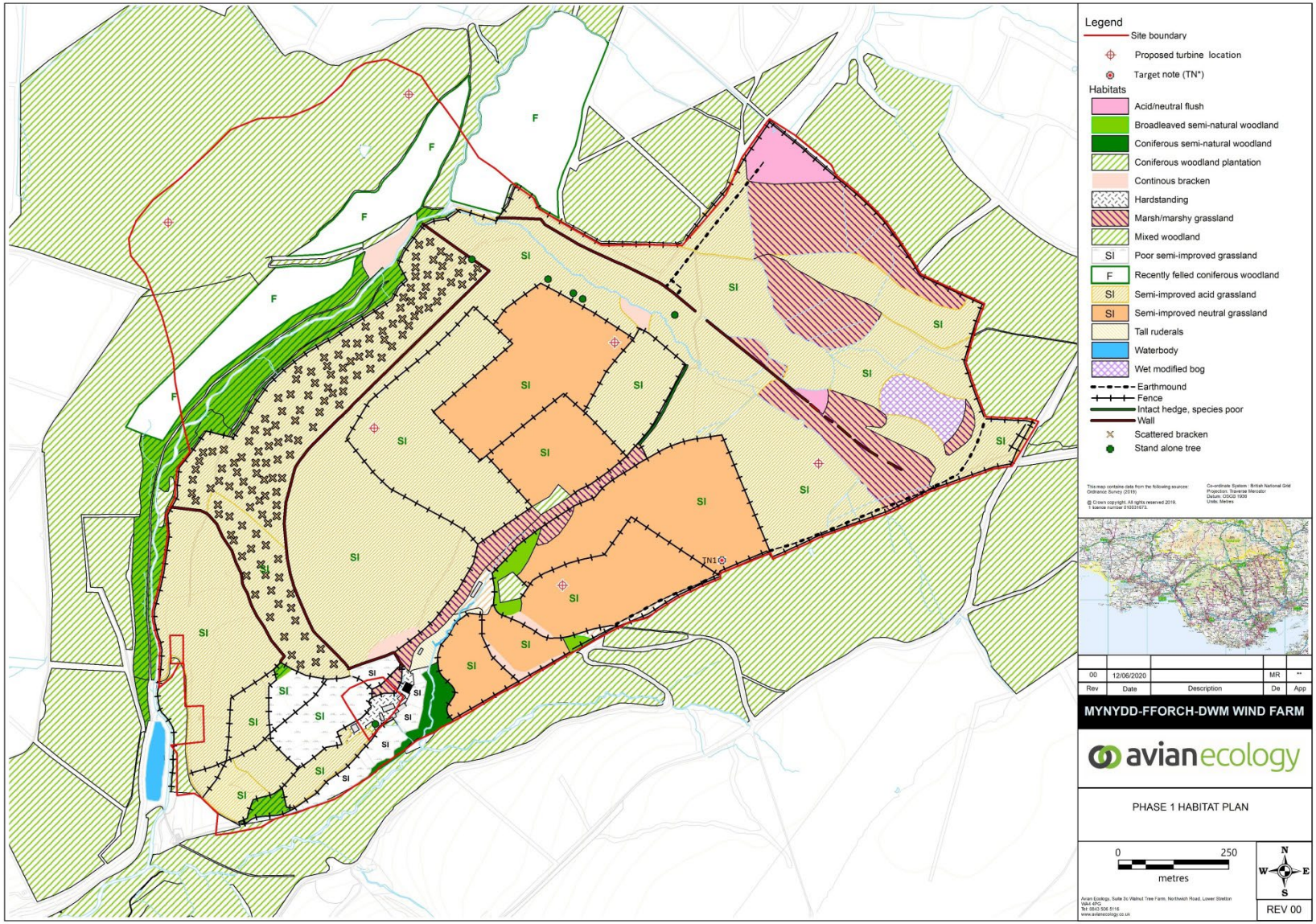
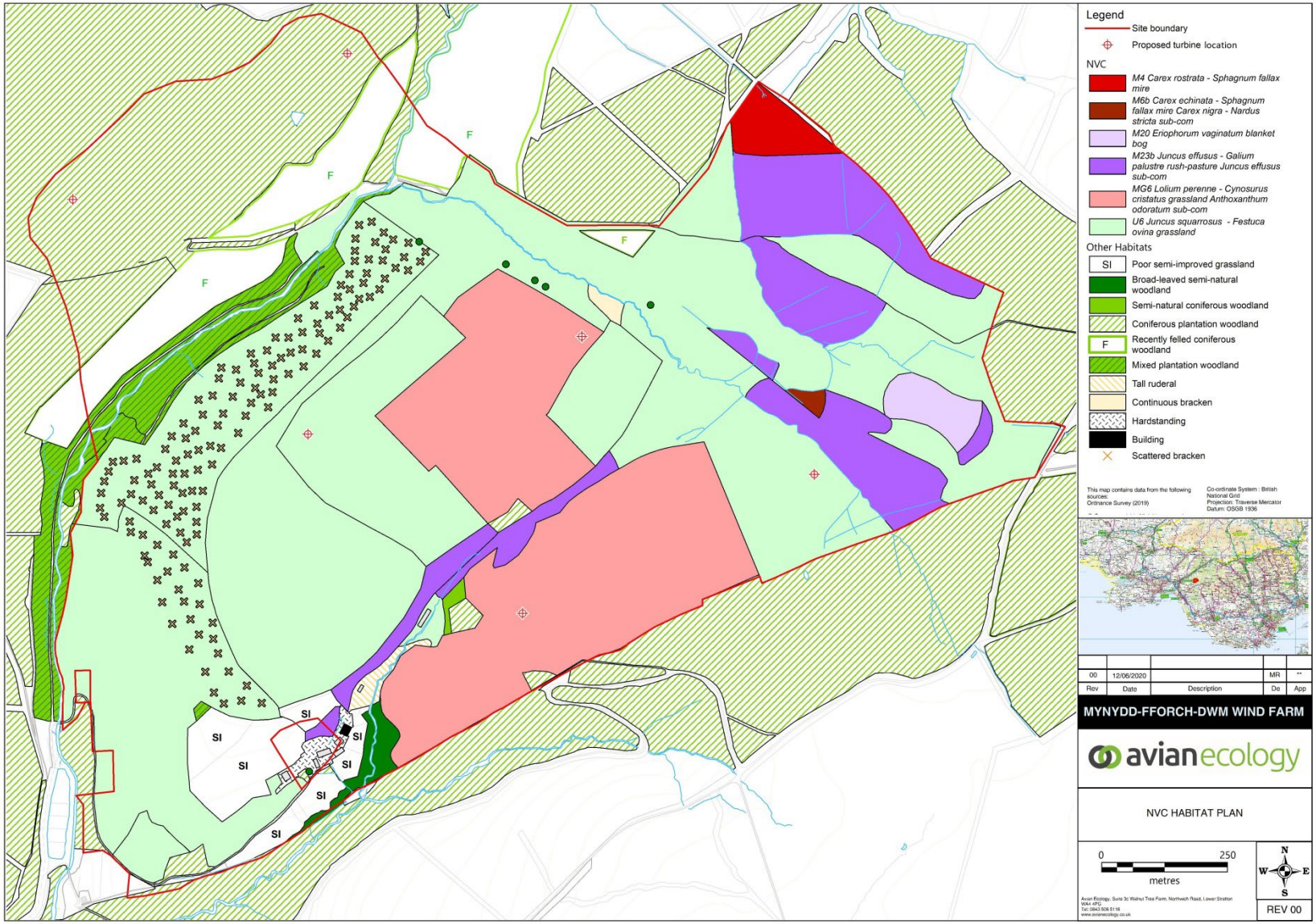


FIGURE 2: NVC SURVEY PLAN



ANNEX 1: SPECIES LIST

A summary of botanical species recorded during the Phase 1 habitat and NVC survey is provided in **Table A1-1** below.

Table A1-1: Summary botanical species list.

Species	
Agrostis stolinifera	Creeping bent-grass
Alopecurus geniculatus	Marsh foxtail
Anthoxanthum odoratum	Sweet vernal-grass
Bellis perennis	Daisy
Blechnum spicant	Hard fern
Brachythecium rutabulum	Rough-stalked feather-moss
Calluna vulgaris	Ling
Carex binervis	Green-ribbed sedge
Carex echinata	Star sedge
Carex flacca	Glaucous sedge
Carex nigra	Common sedge
Carex pilulifera	Pill sedge
Carex rostrata	Bottle sedge
Cerastium fontanum	Common mouse-ear
Cirsium palustre	Marsh thistle
Cladonia arbuscula	Lichen
Danthonia decumbens	Heath grass
Deschampsia cespitosa	Wavy hair-grass
Deschampsia flexuosa	Wavey hair-grass
Dicranium sciparium	Broom fork-moss
Drosera rotundifolia	Round-leaved sundew
Dryopteris dilatata	Broad-buckler fern

Erica tetralix	Cross-leaved heath
Eriophorum angustifolium	Common cottongrass
Eriophorum vaginatum	Hare's-tail cottongrass
Festuca ovina	Sheep's fescue
Galium palustre	Marsh bedstraw
Galium saxitle	Heath bedstraw
Holcus lanatus	Yorkshire fog
Hypnum jutlandicum	Hypnum jutlandicum
Juncus bulbosus	Bulbous rush
Juncus effusus	Soft rush
Juncus squarrosus	Heath rush
Leontodon hispidus	Autumn hawkbit
Lolium perennis	Perennial rye-grass
Luzula multiflora	Head woodrush
Menyanthes trifoliata	Bogbean
Molinia caerulea	Purple moor-grass
Nardus stricta	Mat grass
Narthecium ossifragum	Bog asphodel
Poa annua	Annual meadow-grass
Polygala vulgaris	Milkwort
Polygala vulgaris	Milkwort
Polytrichum commune	Common haircap
Polytrichum piliferum	Bristly haircap
Potamogeton natans	Broad-leaved pond-weed
Potentilla erecta	Tormentil
Ranunculus acris	Meadow buttercup
Ranunculus repens	Creeping buttercup

Rhytidiadelphus squarrosus	Springy turf-moss
Rumex acetosa	Common sorrel
Sphagnum cuspidatum	Feathery bog-moss
Sphagnum fallax	Flat-topped bog-moss
Sphagnum fimbriatum	Fringed bog-moss
Sphagnum inundatum	Lesser cow-horn bog-moss
Sphagnum papillosum	Papillose bog-moss
Sphagnum sp. *brown*	Sphagnum brown
Sphagnum sp. *green*	Sphagnum green
Sphagnum subnitens	Lustrous bog-moss
Sphagnum tenellum	Soft bog-moss
Trichophorum cespitosum	Deergrass
Trifolium repens	White clover
Ulex europaeus	Gorse
Vaccinium myrtillus	Bilberry

ANNEX 2: NVC SURVEY RESULTS

Tables A2-1, **A2-2 to A2-7, and A-18,** below outline DOMIN scales, scores for NVC survey results and NVC quadrat locations, respectively.

Table A2-1: Dominance (DOMIN) scale.

Code	Approximate percentage cover in quadrat
10	100%
9	75 – 99%
8	50 – 74%
7	33 – 49%
6	25 – 32%
5	15 – 24%, abundant
4	5 – 14%, abundant
3	4%, scattered
2	3%, very scattered
1	1-2%, scarce

Table A2-2: Quadrat species compositions.

Quadrat	A1	A2	A3	A4	A5	Frequency
Species	**Abundance**					
N/A (Bare peat)			4	4		II
Deschampsia flexuosa				4	4	II
Eriophorum angustifolium		4				I
Eriophorum vaginatum	9	9	9	8	8	V
Juncus effusus		4				I
Juncus squarrosus	4		7	8	6	IV
Molinia caerulea	7	7	7	7	7	V
Nardus stricta		4	4		4	III
Polytrichum commune			4	4	6	III
Sphagnum cuspidatum		5		5		II
Sphagnum inundatum	6	5	7	6		IV
Sphagnum subnitens	5	5		4	7	IV
Sphagnum tenellum				4		I

Trichophorum cespitosum					4	I

NVC community	**M20** *Eriophorum vaginatum* blanket bog
GWDTE status	Not likely to be groundwater dependent
Annexe 1 habitat?	Yes – Blanket Bog
Average peat depth	0.7m

Table A2-3: Quadrat species compositions.

Quadrat	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	
Species	**Abundance**						**Frequency**
Brachythecium rutabulum		5					I
Carex echinata		4	4				II
Carex nigra		4	4				II
Deschampsia flexuosa			4	4	5	4	IV
Eriophorum angustifolium		4	4				II
Eriophorum vaginatum			5				I
Festuca ovina	4		4	4			III
Juncus effusus	6	8	8	9	9	9	VI
Molinia caerulea	4	4	6	4			IV
Nardus stricta	4						I
Polytrichum commune	4	4	5	5	4	6	VI
Sphagnum fallax		4	4				II
Sphagnum fimbriatum		8	8	8	9	9	V
Sphagnum subnitens		9					I

NVC community	**M23b** *Juncus effusus - Galium palustre* rush-pasture *Juncus effusus* sub-community
GWDTE status	Likely to be highly groundwater dependent
Annexe 1 habitat?	No

Table A2-4: Quadrat species compositions.

Quadrat	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**	**C9**	**C10**	**C11**	**Frequency**
Species	**Abundance**											
Anthoxanthum odoratum	6						4		4		4	IV
Deschampsia cespitosa							6	5		4	8	IV
Deschampsia flexuosa			4	4	4	4	7	5	4	4		VIII
Festuca ovina	5	6	6	5			4			5		VI
Galium saxatile	8	4										II
Juncus effusus								5	4	4	5	IV
Juncus squarrosus	8	8	8	9	9	9	5	5		8	4	X
Molinia caerulea	7	4	5	5	5	5						VI
Nardus stricta	8	9	7	5	5	5	6	8	8	8		X
Polytrichum commune	4	4	5	5	8	8	7	5	5	5		X
Rhytidiadelphus squarrosus	7	4	8	4			6	8	8	8	8	IX

NVC community	**U6** *Juncus squarrosus - Festuca ovina* grassland
GWDTE status	Likely to be moderately groundwater dependent
Annexe 1 habitat?	No

Table A2-5: Quadrat species compositions.

Quadrat	D1	D2	D3	D4	D5	Frequency
Species	**Abundance**					
Carex echinata	7	5	4	5	5	V
Carex panicea	4					I
Deschampsia flexuosa		4	4			II
Drosera rotundifolia	4		4			II
Eriophorum angustifolium	7	8	8	8	6	V
Eriophorum vaginatum	5	4	4	5	5	V
Festuca ovina	4					I
Juncus bulbosus		5	5	4	4	IV
Juncus effusus			4			I
Molinia caerulea	4	4	6	6	6	V
Nardus stricta	5	4	5	4	4	V
Narthecium ossifragum	4			4	4	III
Polytrichum commune		4				I
Sphagnum fallax	9	9	9	8	9	V
Sphagnum subnitens	4	4				II

NVC community	**M6b** *Carex echinata - Sphagnum fallax* mire *Carex nigra - Nardus stricta* sub-community
GWDTE status	Likely to be highly groundwater dependent
Annexe 1 habitat?	No

Table A2-6: Quadrat species compositions.

Quadrat	E1	E2	E3	E4	E5	Frequency
Species	**Abundance**					
Alopecurus geniculatus	4		4		4	III
Anthoxanthum odoratum	5	7	5	5	6	V
Bellis perennis	5	6	5	5	4	V
Cerastium fontanum	4	4	4		4	IV

Cynosurus cristatus				5	5	II
Holcus lanatus	5	7	5	6	6	V
Leontodon autumnalis	4	4				II
Lolium perennis	5	5	5	5	5	V
Poa annua	8	7	6	6	6	V
Ranunculus acris			5		4	II
Ranunculus repens	6	6	5	6	5	V
Rumex acetosa	7	6	6	6		IV
Trifolium repens	9	9	8	8	8	V

NVC community	**MG6** *Lolium perenne - Cynosurus cristatus* grassland *Anthoxanthum odoratum* sub-community
GWDTE status	Unlikely to be groundwater dependent.
Annex 1 habitat?	No

Table A2-7: Quadrat species compositions.

Quadrat	**F1**	**F2**	**F3**	**F4**	**F5**	**Frequency**
Species	**Abundance**					
Bare peat/ open water	4	4	4	4	4	V
Carex echinata	4	4	4	4	4	V
Carex nigra	4	4		4	5	IV
Carex rostrata	9	9	8	8	4	V
Eriophorum angustifolium	8	8	8	7	8	V
Menyanthes trifoliata					5	I
Molinia caerulea			4			I
Potamogeton polygonifolius	5	5		4		III
Sphagnum fallax	4		4			II

NVC community	**M4** *Carex rostrata - Sphagnum fallax* mire
GWDTE status	Not likely to be groundwater dependent

Annexe 1 habitat?	Yes - Transition Mires and Blanket Bogs

Table A2-8: Quadrat locations.

Quadrat no.	Grid reference	Quadrat no.	Grid reference	Quadrat no.	Grid reference
A1	SS 83394 97843	C3	SS 82932 97867	D4	SS 83065 97929
A2	SS 83378 97853	C4	SS 82941 97856	D5	SS 83077 97913
A3	SS 83370 97857	C5	SS 82981 97785	E1	SS 82469 97736
A4	SS 83366 97857	C6	SS 82980 97779	E2	SS 82418 97734
A5	SS 83303 97851	C7	SS 82229 97686	E3	SS 82590 98081
B1	SS 83270 97831	C8	SS 82221 97707	E4	SS 82607 98039
B2	SS 83210 97825	C9	SS 82254 97704	E5	SS 82590 97996
B3	SS 83205 97820	C10	SS 82176 97710	F1	SS 83005 98478
B4	SS 83132 97834	C11	SS 82318 98033	F2	SS 83002 98501
B5	SS 83113 97858	D1	SS 83071 97916	F3	SS 83014 98488
B6	SS 83067 97893	D2	SS 83069 97917	F4	SS 82982 98470
C1	SS 83284 97837	D3	SS 83063 97929	F5	SS 83014 98483
C2	SS 82972 97947				

ANNEX 3: HABITAT DESCRIPTIONS AND PHOTOGRAPHS

Description	Photograph
Recently felled coniferous plantation in the east of the survey area.	
Wet modified bog in the east of the survey area.	
Marshy grassland in the east of the survey area.	

Description	Photograph
Semi-improved acid grassland common throughout the survey area.	
Flush/mire in the east of the survey area.	
Coniferous plantation which is common on the periphery of the survey area.	

Description	Photograph
Mixed plantation woodland, common in the north-west of the survey area.	
One of three notable watercourses flowing through the survey area.	
Stretch of intact species-poor hedgerow in the centre of the survey area.	

Description	Photograph
Semi-improved acid grassland with scattered bracken in the west of the survey area.	
Target Note 1 (TN1) on Phase 1 habitat survey plan. Located in the southern end of a field of semi-improved neutral grassland in the south of the survey area. Almost completely dried out pond, with marginal vegetation dominated by rush.	

ANNEX 4: POND DESCRIPTIONS

Pond Location	Description	Photograph
SS 81585 97116	In the south-west of the survey area there is a waterbody, which is separated from the Site by a stream. The waterbody is 120m x 30m, with good water quality, good terrestrial habitat and 80% macrophyte cover. This is a waterbody used as a filter system for treating contaminated mine-water flowing into the River Pelenna.	
SS 82870 97581	Almost completely dried out pond in the south of the Site on the edge of a field of semi-improved grassland. The waterbody is choked with marginal vegetation.	