

## **Mynydd Llanhilleth Wind Farm**

### **Ecology Technical Note: Common Land**

#### **edp6367\_r033d**

## **1. Introduction**

- 1.1 This Ecology Briefing Note has been prepared by The Environmental Dimension Partnership Ltd (EDP) on behalf of Pennant Walters (hereafter referred to as 'the Applicant') in relation to proposed wind farm development of land at Mynydd Llanhilleth, Blaenau Gwent (hereafter referred to as 'the Site').
- 1.2 EDP is an independent environmental planning consultancy with offices in Cirencester, Cardiff and Cheltenham. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website ([www.edp-uk.co.uk](http://www.edp-uk.co.uk)).

## **2. Background and Scope**

### **Site Context**

- 2.1 The Site is located at approximate Ordnance Survey National Grid Reference SO 235 017 between Abersychan (within Torfaen County Borough Council (TCBC)) and Abertillery (within Blaenau Gwent County Borough Council (BGCBC)). It lies in the centre of a large, north-south trending ridge of high land between the Cwm Afon valley (including Abersychan and Pontypool) to the east, and the Ebbw Fach valley (Abertillery) to the west. This ridge comprises a series of plateaux typically between 400m and 550m above sea level and is characterised by much unenclosed land grazed by sheep, and to a lesser extent cattle and horses. There is much evidence of historic industrial activity on the slopes of the ridge, particularly in the Cwm Afon valley. Areas of plantation forestry are common elsewhere on the slopes of the ridge and dry-stone walls augmented with post and wire fencing demarcate the edge of the unenclosed area from the surrounding enclosed pastures. These are managed in a relatively intensive manner and appear to be relatively species-poor.
- 2.2 A minor public highway, running north-east to south-west, from Abersychan to Llanhilleth, bisects the Site, with numerous unmetalled tracks otherwise crossing the area. A small stream/flush arises from the central block of coniferous woodland/former quarry area and flows southwards. Additionally, there are several waterbodies, including a number located within the former quarry and created from former quarry workings.

- 2.3 The Site partly overlaps with Mynydd Llanhilleth Common totalling circa 1,402 acres/567ha, with an elevation between 489m in the north and 400m in the south, and with a minor col separating the two areas of higher ground within the Site: Byrgwm in the north and Mynydd Llanhilleth itself in the south. Some planted trees (typically Corsican pine *Pinus nigra* var. *maritima*) ring the eastern edge of the col and a series of unmanaged hedge banks that once defined the boundaries of a small sheep pen is present to the west of the pines. An open group of grey willow (*Salix cinerea*) are present in the south of the site and between these, and an adjacent plantation, are frequent young self-sown coniferous saplings. With the exceptions of a very limited number of small saplings no other trees or larger shrubs are present here.
- 2.4 The section of Mynydd Llanhilleth Common which overlaps with the Site is also designated as a Site of Importance for Nature Conservation (SINC) by TCBC (SINC reference T55). Mynydd Llanhilleth Common SINC is designated for its mosaic of upland habitat types including acid grassland, dwarf shrub heath, wet and dry heath and mire communities. Notable species supported include red grouse (*Lagopus lagopus scotica*), wintering short-eared owl (*Asio flammeus*), upland breeding birds, olive earthtongue (*Microglossum olivaceum*) and common reptiles.
- 2.5 The boundaries of the Site, Mynydd Llanhilleth Common SINC, and the broader Common area more generally are illustrated at **Annex EDP 1**.

**Relevant Legislation: Common Land**

- 2.6 Common land comprises 'land subject to the rights of common' as registered under the Commons Registration Act 1965 with respect to those rights exercisable over the land and a record of its ownership. The Commons Act 2006 replaced the registration system enacted by the 1965 Act but continues to use those registers prepared under that Act. The registration authorities in Wales include all Unitary Authorities and are responsible for compiling, maintaining and amending the commons registers.
- 2.7 To ensure the safeguarding of common land for current and future generations, the 2006 Act enables the Welsh Government to ensure the stock of common land is not diminished, with any deregistration of registered land being compensated for through the registration of other land of at least equal benefit, with its future use consistent with its status as common land. Works taking place on common land is also restricted to those works which maintain or improve the condition of the common or, in exceptional circumstances, where they confer some wider public benefit and are either temporary in duration or have no lasting impact.
- 2.8 Planning Environment Decisions Wales (PEDW) is responsible for Welsh Ministers' casework relating to common land in Wales. The determination of such casework requires Welsh Ministers to have regard to numerous criteria as set out under section 16 (6) of the Commons Act 2006, as defined at section 16(8) of the Commons Act 2006. This includes consideration of the public interest in nature conservation as outlined within the Welsh Government's Common Land

Consents Guidance Note published in August 2014, as common land can deliver of a number of benefits to biodiversity, including:

- Maintaining natural vegetation rich in flora and fauna;
- Protecting a diversity of habitat (on common land, the diversity reflects the lack of incentive to “improve” such land because of the absence of any single controlling interest);
- Promoting Sites of Special Scientific Interest (SSSI) and the conservation of other nationally designated sites; and
- Sustaining grazing systems which are responsible for maintaining many landscape and environmental values on agriculturally-active commons.

***Relevant National Policy: Planning Policy Wales***

2.9 Paragraph 6.3.18 of Planning Policy Wales 12 (PPW, February 2024) identifies common land as a finite resource which should not be developed unnecessarily, given its importance in agricultural terms as well as its value for leisure and environmental interests, particularly in respect of its significant role in habitat conservation. It further states that access to it should not be prevented or impeded unnecessarily to ensure its proper management.

2.10 Additionally, Section 2 of Technical Advice Note 5: Conservation and Planning (TAN5), require consideration of the following key principles regarding positive planning for nature conservation:

- Ensuring that the UK’s international and national obligations for site, species and habitat protection are fully met in all planning decisions;
- Ensuring development provides a net benefit for biodiversity conservation, with no significant loss of habitats or populations of species, locally or nationally; and
- Adopting a step-wise approach to avoid harm to nature conservation, minimising unavoidable harm by mitigation measures, offsetting residual harm by compensation measures, seeking new opportunities to enhance nature conservation and be satisfied that reasonable alternative sites that would result in less or no harm have been fully considered.

***Development Proposals***

2.11 The Proposed Development comprises a wind farm consisting of up to seven wind turbines, each with a three-bladed rotor with a diameter of up to 150m, a hub height of 122m and maximum height to blade tip of 180m. The wind farm is expected to have an operational life of 30 years. The development proposals also require the construction of associated infrastructure, including:



- Access works - improvements to the existing access route together with the construction of new internal wind farm tracks and upgrading of existing tracks off the main internal access road;
- Turbine foundations including crane pads at each turbine location;
- Temporary construction compounds, laydown and storage areas; and
- Grid connection infrastructure, including the on-site substation, control building and underground cables linking the Site to the wider distribution network.

2.12 The development proposals are illustrated within the Site Layout Plan provided at **Annex EDP 2**.

### **Scope of Assessment**

2.13 Turbine 3 and turbine 4, together with access tracks to these turbines and to turbines 1 and 2, are sited within Mynydd Llanhilleth Common. As such, their construction and operation over the lifetime of the development will result in the loss of common land amounting to 7.1 acres. Such losses equate to circa 0.51% of the total area of Mynydd Llanhilleth Common.

2.14 To compensate for the loss of common land, hereafter referred to as the 'release land', an area totalling circa 10 acres is proposed as 'replacement land', located to the immediate south of the former quarry area, to the west of turbine 8.

2.15 The location of the release land and replacement land in relation to the Site and wider common area is illustrated at **Annex EDP 3**.

2.16 To further inform the common land exchange proposed, a detailed botanical assessment of those habitats supported across the release and replacement land parcels was undertaken in 2020, updated in 2021, 2022 and 2024, as further detailed below.

## **3. Methodology**

### **Extended Phase 1 Survey**

3.1 The principal habitats within the Site, together with their dominant/characteristic plant species were identified during the Extended Phase 1 survey.

3.2 The survey technique adopted for the initial habitat assessment was at a level intermediate between a standard Phase 1 survey technique<sup>1</sup>, based on habitat mapping and description, and

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<sup>1</sup> Joint Nature Conservation Council (2004) *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit* (reprinted with minor corrections for original Nature Conservancy Council publication).



a Phase 2 survey, based on detailed habitat and species surveys. The survey technique is commonly known as an Extended Phase 1 survey. This level of survey does not aim to compile a complete floral and faunal inventory for the Site.

- 3.3 The level of survey involves identifying and mapping the main habitat types (including priority<sup>2</sup> habitats) and identifying the dominant plant species present within each habitat type. In addition, any actual or potential protected or priority<sup>3</sup> species are identified and scoped.
- 3.4 An Extended Phase 1 survey was undertaken of the Site by a suitably experienced surveyor on 06, 07 and 08 April 2020.

#### *Limitations*

- 3.5 Full access was available during the surveys, during which weather conditions were good, being warm, dry, and still. April is within the optimal period for undertaking an Extended Phase 1 survey and as such, the timings of the surveys are not considered a constraint to survey effort.

#### **Detailed Botanical Survey**

- 3.6 To further provide a robust assessment of those habitats supported by the Site, a targeted botanical survey was also undertaken on 22 May 2020, and updated on 14 June 2021, 08 May 2022 and 14 July 2024.
- 3.7 The botanical survey sought to identify any distinct plant communities of note and to further assess their botanical value. The survey adopted the DAFOR methodology whereby all vascular plant species (and bryophytes where identifiable) were identified according to their abundance.
- 3.8 The botanical survey was undertaken by an experienced botanist, with full access available during the surveys. The May 2020 survey followed a two-month period of near-drought, during which, weather conditions were overcast, very windy, and with occasional light drizzle. Weather conditions were otherwise dry and sunny during June 2021, May 2022 and July 2024.
- 3.9 The botanical survey followed the DAFOR methodology whereby each plant species was accorded a code relative to its frequency and abundance within the Site, as follows:
- D = Dominant;
  - A = Abundant;

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<sup>2</sup> Habitats which are considered to be of key significance to sustain and improve biodiversity in Wales, as listed under Section 7 of the *Environment (Wales) Act 2016*.

<sup>3</sup> Species which are considered to be of key significance to sustain and improve biodiversity in Wales, as listed under Section 7 of the *Environment (Wales) Act 2016*.

- F = Frequent;
- O = Occasional; and
- R = Rare.

3.10 Where a species had a particularly localised status within a field it was noted with the prefix L (e.g. rare in the wider field but local occasional = R/LO).

3.11 All vascular plant and bryophyte species were recorded to DAFOR level with species lists and DAFOR scores recorded separately per habitat type surveyed. Vegetation communities identified were subsequently mapped and described in accordance with standard survey protocol. Where possible, National Vegetation Classification (NVC) methodology was also utilised where appropriate to classify distinct plant communities and sub-communities supported with respect to their species composition and relative abundance, in addition to determining their botanical value and relative nature conservation value of the swards present.

#### *Limitations*

3.12 Full access was available to those areas targeted for survey, whilst weather conditions were sunny and dry during the survey visits. The botanical survey was also undertaken during an optimal period allowing for a high level of accuracy in determining the status of plant species on site. As such, no significant limitations were identified during the detailed botanical survey.

## **4. Results**

### ***Mynydd Llanhilleth Common – Wider Area***

4.1 The Extended Phase 1 and botanical surveys demonstrated that five principal habitats are present across Mynydd Llanhilleth Common where it overlaps with the Site: heather-dominated dwarf shrub heath on the areas of highest elevation; a crowberry-dominated community on elevations slightly below the heather-dominated areas; a bilberry-dominated community below that; a relatively species-poor acidic grassland; and species-poor rush pasture. A sixth habitat type, a bracken-dominated area over a sward of acid grassland and both crowberry-dominated and bilberry-dominated communities, is also present but covers a limited area. No rare or scarce plant species were recorded during the surveys, however. These communities are illustrated at **Annex EDP 4** and further described below.

### *Heather-Dominated Dwarf Shrub*

- 4.2 In the higher parts of the northernmost extents of the Site, on the summit and south-eastern slopes of Byrgwm, there is a relatively dense community of old heather (*Calluna vulgaris*) bushes. Beneath them there is much crowberry (*Empetrum nigrum*) and some bilberry (*Vaccinium myrtillus*). Acidic grassland species such as brown bent (*Agrostis vinealis*), sheep's fescue (*Festuca ovina*), sweet vernal-grass (*Anthoxanthum odoratum*), mat grass (*Nardus stricta*), wavy hair-grass (*Deschampsia flexuosa*), heath rush (*Juncus squarrosus*), heath bedstraw (*Galium saxatile*), pill sedge (*Carex pilulifera*) and tormentil (*Potentilla erecta*) are also present to varying degrees.



**Image EDP 4.1:** Heather-dominated vegetation near the summit of Byrgwm.

### *Crowberry-Dominated Community*

- 4.3 This occupies the upper slopes of Byrgwm below those areas occupied by heather. Apart from the paucity of heather, it is very similar to the community described above except that crowberry is often abundant here, and bilberry can be frequent, more so in the heather-dominated areas.

### *Bilberry-Dominated Community*

- 4.4 This community is found on the mid slopes of Byrgwm, typically below the heather and the crowberry-dominated communities but above the grass and herb-dominated acidic grassland. It has many of the attributes of the crowberry-dominated community described above but is marked from that by a very high frequency of bilberry, another ericaceous species. Crowberry can be found here too but only in a small quantity. Where bilberry is less dominant, other species

such as brown bent occur, alongside field woodrush (*Luzula campestris*), sweet vernal-grass, heath speedwell (*Veronica officinalis*), tormentil and creeping soft-grass (*Holcus mollis*).



**Image EDP 4.2:** Bilberry-dominated vegetation.

#### *Acid Grassland*

- 4.5 Unimproved acid grassland is present to the immediate north of the former quarry areas across Llanhilleth Common and across areas of Byrgwm, occurring in the far northern and north-eastern extents of the Site which do not otherwise support the heather, crowberry and bilberry dominated communities. This grassland community is not especially species-rich, with typical species encountered including brown bent, sheep's fescue, sweet vernal-grass, heath rush, heath bedstraw, tormentil, mat grass, sheep's sorrel (*Rumex acetosella*), rough meadow-grass (*Poa trivialis*), cocks-foot (*Dactylis glomerata*), creeping cinquefoil (*Potentilla reptans*), pill sedge, annual meadow-grass (*Poa annua*) and common bird's-foot trefoil (*Lotus corniculatus*). Also present but much less common are species such as mouse-ear hawkweed (*Pilosella officinarum*) and common milkwort (*Polygala officinalis*).
- 4.6 Closer to the road which traverses Llanhilleth Common, areas of unimproved acid grassland demonstrate a slightly less acidic species composition with more meadow-grasses and less typical acidic grassland herbs. Overall, this community is not especially species-rich. This phenomenon is common in the uplands and is caused by sheep preferentially resting and grazing adjacent to roads and thus dunging and urinating there in a greater concentration than



will be found elsewhere on an upland site. This increased nutrient input favours more nutritious generalist grass species at the expense of more distinctive but less nutritious acidic grassland grasses and herbs which in turn encourages sheep to graze there, thus furthering the input of nutrients.



**Image EDP 4.3:** Acid grassland with typically frequent presence of rush species.

#### *Marshy Grassland*

- 4.7 The southern and south-eastern extents of Llanhilleth Common, in addition to the lower levels of the northern half of the common, supports species-poor marshy grassland, often in a mosaic with smaller areas of species-poor acid grassland. This habitat supports a species-poor plant community dominated by soft rush (*Juncus effusus*), with localised frequencies of hard rush (*Juncus inflexus*) and compact rush (*Juncus conglomeratus*). Heath rush and field woodrush are also occasionally recorded, as is sphagnum moss (*Sphagnum* spp.). Where spring lines and flushes occur, additional species such as bog stitchwort (*Stellaria alsine*), cuckooflower (*Cardamine pratensis*), blinks (*Montia fontana*), marsh foxtail (*Alopecurus geniculatus*), small sweet-grass (*Glyceria 9eclinata*) and marsh thistle (*Cirsium palustre*) are also encountered on occasion. Stands of common sedge (*Carex nigra*) are also present in places. No rare or otherwise notable plant species were recorded in this community.



**Image EDP 4.4:** Marshy grassland – a typically dense and species-poor area dominated by soft rush.

#### *Bracken*

- 4.8 Across the north-eastern extents of the Site overlapping with the common, on lower slopes of Byrgwm where it falls southwards towards farmed agricultural land, heather communities give way to bracken (*Pteridium aquilinum*). The bracken here does not have a deep litter and may be in the initial phase of colonisation. The sward beneath is relatively species-rich in places and is divided into the crowberry-dominated and bilberry-dominated communities previously described.
- 4.9 More generally there are few precise boundaries between the dwarf shrub heath, acid grassland, and bracken-dominated areas occurring onsite. Much of this is best seen as a complex mosaic of these plant communities. Further west, bracken habitat merges with small patches of dry heath, grassland and occasional rush (*Juncus* spp.).

#### *Semi-improved Neutral Grassland*

- 4.10 Semi-improved neutral grassland is limited to a single field to the north-west of the common area overlapping with the Site. Sweet vernal-grass is the dominant grass here, with common bent (*Agrostis capillaris*) and crested dog's-tail (*Cynosurus cristatus*) abundant and annual meadow-grass (*Poa annua*) frequent. Marsh foxtail, smooth meadow-grass (*Poa pratensis*) and rough meadow-grass are also locally frequent. Herbs frequently recorded include white clover

(*Trifolium repens*), common sorrel (*Rumex acetosa*), creeping buttercup (*Ranunculus repens*), ribwort plantain (*Plantago lanceolata*), daisy (*Bellis perennis*), yarrow (*Achillea millefolium*) and common cat's-ear (*Hypochaeris radicata*). Frequent populations of eyebright (*Euphrasia* sp.) are notable here, a species typically associated with old, established pastures.

### **Mynydd Llanhilleth Common SINC Assessment**

4.11 Habitat types supported across Mynydd Llanhilleth SINC where it overlaps with the Site have also been assessed against the Guidelines for the Selection of Wildlife Sites in South Wales by the South Wales Wildlife Sites Partnership (Gwent Wildlife Trust, 2004, this document is hereafter referred to as the GSWSSW<sup>4</sup>), as follows:

- Heathland and Grass Heath Communities (H10): A minimum of 10% coverage of heath vegetation is required to satisfy the SINC designation criteria. Both the heather-dominated and crowberry-dominated communities have in excess of 10% coverage of these ericaceous species and thus this habitat type satisfies the SINC designation criteria;
- Acid Grassland (H6): The GSWSSW notes that “all examples of semi-improved dry acid grassland which retain a relatively high diversity of indicator species” should be considered for SINC designation, with a minimum of seven indicator species recorded to justify SINC designation. Whilst no species of particular note were recorded during the survey, 11 indicator species are confirmed present, such that areas of acid grassland supported by the Site satisfy SINC designation criteria with respect to species-richness;
- Marshy Grassland (H7): The GSWSSW states that a minimum of 12 indicator species are required to consider a marshy grassland to be a candidate for SINC status by virtue of species-richness. Marshy grassland habitat present onsite is typically dominated by soft rush and is species-poor. However, 13 indicator species were recorded here, although none of these 13 indicators are “quality” indicators as identified by the Guidelines. Furthermore, the marshy grassland community here most closely resembles the MG10 *Holcus lanatus*-*Juncus effusus* rush-pasture, an NVC community not included in the qualifying communities listed in the Guidelines;
- Bracken Communities (H9): Bracken occurring onsite is relatively open and does not form a dense litter. Furthermore, it overlies a relatively species-rich acid grassland community with localised abundances of bilberry and crowberry. As such, it is best considered as an extension of the Acid grassland (H6) and Crowberry-dominated Heathland and Grass Heath Communities (H10), rather than a community in its own right;

<sup>4</sup> South Wales Wildlife Sites Partnership (2004). *Guidelines for the Selection of Wildlife Sites in Wales*. Available at: <http://www.sewbrec.org.uk/content/attachments/SouthWalesWildlifeSitesCompleteDoc.pdf>.



- Other SINC Qualifying Criteria - Naturalness/Typicalness: With regard to this criterion, habitats supported by the Site where it overlaps with these SINC are typical of upland plant communities, being unimproved, subject to traditional management and are locally species-rich, albeit partly degraded by over-grazing. The habitats and plant communities found here are thus relatively natural, being subject to only minimal management through the maintenance of traditional grazing regimes, albeit with historic over-stocking by sheep having possibly diminished the site's botanical diversity (a factor common to many UK uplands); and
- Other SINC Qualifying Criteria - Diversity: With regard to this criterion, the ericaceous communities have a relatively high species diversity, whilst also exhibiting a natural gradation between acid grassland habitats through to the ericaceous communities through to marshy grassland habitat. Few hard demarcations are present between these communities, allowing for the development of habitat mosaics across this area.

4.12 Given the above, the majority of habitats/communities recorded across Mynydd Llanhilleth Common SINC where it overlaps with the Site are considered to satisfy the SINC designation criteria. The larger areas of locally very extensive marshy grassland are typically species-poor, however, and unlikely eligible for designation as a SINC in its own right. Nevertheless, there is an extensive intergrading of the marshy grassland with most of the other plant communities recorded here and with acid grassland in particular. As such, the inclusion of this habitat type within the SINC is justified, particularly when considering other SINC criteria such as Naturalness.

4.13 Plant species recorded during the botanical survey of Mynydd Llanhilleth Common SINC where it overlaps with the Site are further listed below in **Table EDP 4.1**.

**Table EDP 4.1:** Botanical Species List, Mynydd Llanhilleth Common.

Common name	Scientific name	DAFOR			
		Heather Community	Crowberry/ Bilberry Community	Acid grassland	Marshy grassland
Yarrow	<i>Achillea millefolium</i>			R	
Velvet bent*	<i>Agrostis canina</i>				A
<b>Brown bent</b>	<i>Agrostis vinealis</i>	A	A	D	F
Sweet vernal-grass	<i>Anthoxanthum odoratum</i>	O	F	F	O
Lady fern	<i>Athyrium filix-femina</i>				R
<b>Heather</b>	<i>Calluna vulgaris</i>	A	R		
<b>Pill sedge</b>	<i>Carex pilulifera</i>	R		O	
Oval sedge*	<i>Carex leporina</i>				R
Black knapweed	<i>Centaurea nigra</i>				R
Common mouse-ear	<i>Cerastium fontanum</i>	R		R	

Common name	Scientific name	DAFOR			
		Heather Community	Crowberry/ Bilberry Community	Acid grassland	Marshy grassland
Creeping thistle	<i>Cirsium arvense</i>			R	
Marsh thistle	<i>Cirsium palustre</i>				R/LO
Crested dog's-tail	<i>Cynosurus cristatus</i>		R	R	
Cocks-foot	<i>Dactylis glomerata</i>	R		O	O
<b>Wavy hair-grass</b>	<i>Deschampsia flexuosa</i>	R		R	O
Foxglove	<i>Digitalis purpurea</i>				F
Crowberry	<i>Empetrum nigrum</i>	F/LA	A		
Square-stemmed willowherb	<i>Epilobium tetragonum</i>				R
Field horsetail	<i>Equisetum arvense</i>			R	
<b>Sheep's fescue</b>	<i>Festuca ovina</i>	F	F	A	F
<b>Heath bedstraw</b>	<i>Galium saxatile</i>	O	O	O	
Yorkshire fog	<i>Holcus lanatus</i>	O	O	O	F
Common cat's-ear	<i>Hypochaeris radicata</i>			R	
Jointed rush*	<i>Juncus articulatus</i>				R
Compact rush*	<i>Juncus conglomeratus</i>	R			O
Soft rush	<i>Juncus effusus</i>	R	R	F	D
Hard rush	<i>Juncus inflexus</i>				O/LF
<b>Heath rush *</b>	<i>Juncus squarrosus</i>	R	R	R	R
<b>Bitter vetchling</b>	<i>Lathyrus montana</i>			R	
Perennial rye-grass	<i>Lolium perenne</i>			R	
Bird's-foot trefoil	<i>Lotus corniculatus</i>			O	
Greater bird's-foot trefoil*	<i>Lotus pedunculatus</i>				O
Field woodrush	<i>Luzula campestris</i>	R	R	R	
<b>Heath woodrush</b>	<i>Luzula multiflora</i>	R		R	
Water mint*	<i>Mentha aquatica</i>				R
Purple moor-grass*	<i>Molinia caerulea</i>	O	R	R	R
<b>Mat grass</b>	<i>Nardus stricta</i>	R	R	F	
<b>Mouse-ear hawkweed</b>	<i>Pilosella officinarum</i>			R/LF	
Ribwort plantain	<i>Plantago lanceolata</i>			F	
Annual meadow-grass	<i>Poa annua</i>			F	
Rough meadow-grass	<i>Poa trivialis</i>			F	
<b>Tormentil*</b>	<i>Potentilla erecta</i>	O	O	F	O
Creeping cinquefoil	<i>Potentilla reptans</i>	R	R	O	O
Bracken	<i>Pteridium aquilinum</i>	R	O/LA		
Meadow buttercup	<i>Ranunculus acris</i>		R	O	O

Common name	Scientific name	DAFOR			
		Heather Community	Crowberry/ Bilberry Community	Acid grassland	Marshy grassland
Lesser spearwort*	<i>Ranunculus flammula</i>				R
Creeping buttercup	<i>Ranunculus repens</i>			O	F
Sorrel	<i>Rumex acetosa</i>	R	R	R	R
Sheep's sorrel	<i>Rumex acetosella</i>	R		R	
Clustered dock*	<i>Rumex conglomeratus</i>		O		O
Marsh ragwort*	<i>Senecio aquaticus</i>				R
Lesser stitchwort	<i>Stellaria graminea</i>			R	
Bog stitchwort	<i>Stellaria uliginosa</i>				R
Dandelion	<i>Taraxacum officinale</i> agg.	R	R	R	R
Lesser trefoil	<i>Trifolium dubium</i>			R/LO	
White clover	<i>Trifolium repens</i>			O/LF	
Common milkwort	<i>Polygala vulgaris</i>			R	
Common nettle	<i>Urtica dioica</i>				O
<b>Bilberry</b>	<i>Vaccinium myrtillus</i>	O	F	R	
Thyme-leaved speedwell	<i>Veronica serpyllifolia</i>		R		

**Note:** Where the common name is listed in bold, this species is listed as an indicator species of acid grassland, with reference to the GSWSSW; where the common name is denoted with a '\*', this species is listed as an indicator species of marshy grassland, with reference to the GSWSSW. Where the common name is listed in both bold and with a '\*', this indicates this species is found in both tables of the guidance.

#### **Mynydd Llanhilleth Common – Release Land**

- 4.14 The release land parcels, as illustrated at **Annex EDP 3**, amounting to 7.1 acres, predominantly comprise unimproved acid grassland and marshy grassland/rush pasture habitat as previously described above. Areas of semi-improved acid grassland, tall herbs and bracken are also present along the access route between turbine 4 and turbine 8 which traverses through the former forestry plantation and quarry area.

#### **Replacement Land**

- 4.15 Replacement land proposed in compensation for the loss of common land within Mynydd Llanhilleth Common, required to accommodate the Proposed Development, totals 10 acres and encompasses two field parcels located at approximate Ordnance Survey Grid Reference (OSGR) SO 231 011. These fields lie to the immediate west of a parcel of unimproved acid grassland at Cefn Cribb comprising Mynydd Llanhilleth Common. Together, these three fields comprise the southernmost extent of the Site, situated to the immediate south of the former forestry plantation and quarry area.

- 4.16 Of the two field parcels proposed as replacement land, the larger field to the west comprises a large area of rough ground on the steep, lower slopes of the Cwm Cnyw valley. Spoil tips, indicative of a history of extractive industry (likely from past coal mining activities) occur here, dominated by dense bracken. A species-poor acid grassland sward is otherwise supported beneath the dense bracken layer and mostly comprises common grasses such as brown bent, sweet vernal-grass, sheep's fescue, red fescue (*Festuca rubra*) and Yorkshire fog (*Holcus lanatus*), along with common bird's-foot trefoil, creeping buttercup, field woodrush and ribwort plantain. Both European gorse (*Ulex europaeus*) and western gorse (*Ulex gallii*) are locally common amongst this bracken-dominated community, along with some marsh thistle. Scattered shrubs and trees are also present along the western boundary of this field in association with Nant y Cnyw, including hawthorn (*Crataegus monogyna*), silver birch (*Betula pendula*), grey willow and beech (*Fagus sylvatica*).
- 4.17 There are limited areas with a more species-rich unimproved acid grassland flora, mainly on those parts of the spoil tips not dominated by bracken, together with a small area to the north of the spoil tips. Here there is pill sedge, early hair-grass (*Aira praecox*), heath bedstraw, slender St John's-wort (*Hypericum puchrum*), mat grass, mouse-ear hawkweed, bilberry and heath speedwell.



**Image EDP 4.5:** Westernmost field comprising replacement land – view to south-west.





**Image EDP 4.6:** Westernmost field comprising replacement land – view to north of one of the spoil tips.

- 4.18 The proposed replacement land parcel also extends eastwards to connect to Mynydd Llanhilleth Common, traversing a large, agriculturally managed field with a gentle north-westerly aspect on the upper slopes of the Cwm Cnyw valley. This field has been subject to ploughing and reseeding in the recent past and the remains of hedge banks within the field indicate that it has been created from the amalgamation of three smaller fields. Small quantities of bluebell (*Hyacinthoides non-scripta* agg.) occurring on these relict banks suggest that hedgerows may once have occurred here.
- 4.19 More generally, agriculturally favoured grasses dominate this poor semi-improved grassland field. Typical species encountered include common bent, sweet vernal-grass, soft brome (*Bromus hordaceus*), crested dog's-tail, red fescue and Yorkshire fog. Other commonly occurring grasses include perennial rye-grass (*Lolium perenne*), smooth meadow-grass and rough meadow-grass. The herb component is dominated by an unusual combination of yellow rattle (*Rhianthus minor*), lesser trefoil (*Trifolium dubium*), bulbous buttercup (*Ranunculus bulbosus*) and white clover. Pignut (*Conopodium majus*), red clover (*Trifolium pratense*), common sorrel, common mouse-ear (*Cerastium fontanum*) and ribwort plantain are also frequent here. This field appeared shut up for hay during the June 2021 survey, but several sheep were also present and may have been unintended grazers. A small area on the north-western side of this field has several hay rounds within it and a slightly less agriculturally improved sward than the rest of the field.



**Image EDP 4.7:** View to north-west of agricultural field proposed as replacement land.

- 4.20 To the immediate east of the proposed replacement land parcel lies a field supporting unimproved acid grassland comprising part of Mynydd Llanhilleth Common where it overlaps with the Site. This field comprises a large expanse of relatively homogenous, free-draining and overgrazed moorland. Sheep's fescue is the dominant grass here, with brown bent abundant and mat grass frequent. Other grasses include purple moor-grass (*Molinia caerulea*), early hair-grass and smooth meadow-grass. Heath bedstraw is also abundant and heath rush frequent as well as being locally abundant. A small quantity of bilberry is also scattered throughout. An old bank and ditch feature runs along the western edge of this field, likely an old manorial or parish boundary, with the ditch supporting soft rush.





**Image EDP 4.8:** Area of unimproved acid grassland comprising Mynydd Llanhilleth Common, located to the immediate east of the replacement land parcel – view to south.

4.21 Plant species recorded during the botanical survey of these three fields are listed below in **Table EDP 4.2**.

**Table EDP 4.2:** Botanical Species List, Replacement Land.

Common name	Scientific name	DAFOR		
		Replacement Land: Western field	Replacement Land: Eastern extension	Common Land: Field adjacent (east) of replacement land
Yarrow	<i>Achillea millefolium</i>			R/LO
Common bent	<i>Agrostis capillaris</i>		F/LA	
Brown bent	<i>Agrostis vinealis</i>	A		F
Early hair-grass	<i>Aira praecox</i>	O		R
Marsh foxtail	<i>Alopecurus geniculatus</i>			R
Sweet vernal-grass	<i>Anthoxanthum odoratum</i>		A	F/LA
Daisy	<i>Bellis perennis</i>		F	
Soft brome	<i>Bromus hordaceus</i>		A	R



Common name	Scientific name	DAFOR		
		Replacement Land: Western field	Replacement Land: Eastern extension	Common Land: Field adjacent (east) of replacement land
Pill sedge	<i>Carex pilulifera</i>			R/LO
Spiked sedge	<i>Carex spicata</i>			R
Black knapweed	<i>Centaurea nigra</i>			R
Common mouse-ear	<i>Cerastium fontanum</i>		F	O
Creeping thistle	<i>Cirsium arvense</i>			R
Marsh thistle	<i>Cirsium palustre</i>			O
Pignut	<i>Conopodium majus</i>		O	
Beaked hawksbeard	<i>Crepis vesicaria</i>		R	
Crested dog's-tail	<i>Cynosurus cristatus</i>		A/LD	O
Cocksfoot	<i>Dactylis glomerata</i>		O	R/LO
Foxglove	<i>Digitalis purpurea</i>			O/LF
Sheep's fescue	<i>Festuca ovina</i>	D		F
Red fescue	<i>Festuca rubra</i>		A	F
Heath bedstraw	<i>Galium saxatile</i>	A		O/LF
Dove's-foot cranes-bill	<i>Geranium molle</i>			R
Yorkshire fog	<i>Holcus lanatus</i>		F/LA	F
Creeping soft-grass	<i>Holcus mollis</i>		R/LO	O
Slender St John's-wort	<i>Hypericum pulchrum</i>			R
Bluebell	<i>Hyacinthoides non-scripta</i>		R/LO	O
Common cat's-ear	<i>Hypochaeris radicata</i>		R	R
Soft rush	<i>Juncus effusus</i>	O/LF		O/LF
Heath rush	<i>Juncus squarrosus</i>	F/LA		
Perennial rye-grass	<i>Lolium perenne</i>		F	O
Common bird's-foot trefoil	<i>Lotus corniculatus</i>			F
Field wood-rush	<i>Luzula campestris</i>	R	R/LO	F
Purple moor-grass	<i>Molinia caerulea</i>	O/LF		R
Blinks	<i>Montia fontana</i>	R		
Field forget-me-not	<i>Myosotis arvensis</i>		R	
Mat grass	<i>Nardus stricta</i>	F		O
Mouse-ear hawkweed	<i>Pilosella officinarum</i>			O
Ribwort plantain	<i>Plantago lanceolata</i>	R	F	O/LF
Annual meadow-grass	<i>Poa annua</i>	R	O	O
Smooth meadow-grass	<i>Poa pratensis</i>	O	O/LF	O
Rough meadow-grass	<i>Poa trivialis</i>		F	R
Tormentil	<i>Potentilla erecta</i>	R		O
Selfheal	<i>Prunella vulgaris</i>		O	R/LO
Bracken	<i>Pteridium aquilinum</i>	R/LO	R	D

Common name	Scientific name	DAFOR		
		Replacement Land: Western field	Replacement Land: Eastern extension	Common Land: Field adjacent (east) of replacement land
Meadow buttercup	<i>Ranunculus acris</i>		F	R
Bulbous buttercup	<i>Ranunculus bulbosus</i>		A/LD	
Creeping buttercup	<i>Ranunculus repens</i>			F
Yellow rattle	<i>Rhinanthus minor</i>		A/LD	
Common sorrel	<i>Rumex acetosa</i>		F	O
Sheep's sorrel	<i>Rumex acetosella</i>			F/LA
Curled dock	<i>Rumex crispus</i>		R	
Broad-leaved dock	<i>Rumex obtusifolius</i>		R	
Procumbent pearlwort	<i>Sagina procumbens</i>			F
Lesser stitchwort	<i>Stellaria graminea</i>			O
Lesser trefoil	<i>Trifolium dubium</i>		A/LD	O
Red clover	<i>Trifolium pratense</i>		F	R
White clover	<i>Trifolium repens</i>	O	A	O
Common gorse	<i>Ulex europaeus</i>			O/LF
Western gorse	<i>Ulex gallii</i>			O/LF
Bilberry	<i>Vaccinium myrtillus</i>	O		R
Germander speedwell	<i>Veronica chamaedrys</i>		R	
Heath speedwell	<i>Veronica officinalis</i>			O/LF
Thyme-leaved speedwell	<i>Veronica serpyllifolia</i>			R
Squirreltail fescue	<i>Vulpia bromoides</i>			O

## 5. Potential Ecological Impacts of the Common Land Exchange

### Release Land

- 5.1 In the absence of mitigation, the de-registration of common land comprising the release land parcels will prevent the continued exercising of Commoners' rights across this land in future. Such rights include the right of public access, the grazing of livestock and harvest of fern for bedding by commoners.
- 5.2 The reduction of common land will amount to only 7.1 acres, which equates to circa 0.53% of the total land area comprising Mynydd Llanhilleth Common. As such, the removal of Commoners' rights from only a small proportion of the wider common area is not considered likely to result in any ecological impacts of significance. Nevertheless, the de-registration of the release land parcels, should planning permission subsequently be granted, will facilitate the construction of the Proposed Development thereafter.

- 5.3 In the absence of mitigation, the Proposed Development will result in habitat loss and fragmentation together with disturbance and damage of retained habitats, with such habitats currently providing suitable opportunities for a variety of protected and priority species, including bats, common reptiles, invertebrates and breeding birds. Impacts to such habitats are limited in extent, however, with only two out of the seven wind turbines sited within common land, and with access routes between turbines utilising existing tracks and surfaced highways as far as possible.

### ***Replacement Land***

- 5.4 The designation of the replacement land parcels as common land will potentially introduce habitat management to those existing botanical communities present, should the general public and registered commoners choose to exercise their rights over the land in future, following common land exchange. Additionally, minor works to facilitate grazing across replacement land (albeit subject to future consent) may also be required by the Applicant from the outset or in future, such as to provide/improve stock-proof fencing.
- 5.5 The replacement land parcels are currently subject to grazing. In absence of mitigation, impacts are therefore considered to be minor, though any increase in grazing pressure could impact upon semi-improved acid grassland and bracken mosaic habitats supported across the larger, western parcel comprising the replacement land. The action of grazing and physical disturbance by livestock could be beneficial however, facilitating the break-up and control of bracken encroachment and thatch build up necessary to enhance and maintain the areas of acid grassland supported. Indeed, successional habitats could be effectively managed over the long-term through the introduction of suitable levels of trampling, grazing and physical disturbance required to slow down habitat succession and encroachment, reduce shade, promote species diversity and maximise habitat structure, providing benefits to the replacement land parcel.
- 5.6 Should over-grazing arise as a result of overstocking however, severe poaching and trampling of the ground may result in ground disturbance and destruction of the sward, particularly within areas affected by impeded drainage. Such impacts across the replacement land will similarly apply to the release land parcels and wider common land area, however. Additionally, the landowner of the replacement land may choose to increase/extend livestock grazing and/or introduce other agricultural activities across the replacement land parcels in future.
- 5.7 Overall, in absence of mitigation, minor habitat loss and fragmentation may arise together with some disturbance and damage to retained habitats across replacement land parcels following common land exchange. Increased grazing pressure could also result in additional habitat modification with respect to the extent of bracken cover and shade, the botanical and structural diversity of the swards affected, and ground disturbance arising from trampling and poaching by livestock. Such impacts could be beneficial rather than detrimental however, depending on the intensity of grazing and species of livestock present.

## **Ecological Avoidance and Mitigation Measures Proposed**

- 5.8 Ecological avoidance and mitigation measures proposed as part of the common land deregistration and exchange application include those overarching ecological mitigation measures proposed for the Proposed Development more generally, which encompasses the release and replacement land parcels. Such measures include: those inherent within the design; detailed design measures; sensitive working methodologies; and long-term ecological management measures.
- 5.9 Measures inherent within the design of the Proposed Development alongside detailed design measures have sought to ensure the avoidance and minimisation of ecological impacts. Specific to the common land exchange, only two out of the seven wind turbines are sited within common land, whilst proposed access routes between turbines utilise existing tracks and surfaced highways as far as possible. In addition, impacts of habitat loss and fragmentation will further be compensated and mitigated for through the restoration and enhancement of those ecological valuable habitats to be retained, together with the provision of new tree, hedgerow and shrub planting where necessary to compensate for proposed losses.
- 5.10 In addition to the above, should the common land deregistration and exchange application be granted in addition to subsequent planning consent being received, the preparation and implementation of an Ecological Construction Method Statement (ECMS) is capable of being secured through a pre-commencement condition attached to any future planning consent for the Proposed Development. The ECMS will set out in detail those measures that are to be implemented across the Site, including within the release and replacement land parcels, prior to and during the construction works to avoid, protect and minimise impacts on biodiversity.
- 5.11 It should be noted that the common land deregistration and exchange application is wholly dependent upon the granting of planning permission regarding the Proposed Development, for which due regard to the Conservation of Habitats and Species Regulations 2017 (as amended), the Wildlife and Countryside Act 1981 (as amended) and the Environment (Wales) Act 2016 must be given. As such, protected and priority habitats and species will be fully considered as part of the planning process, with the delivery of sufficient avoidance, compensation and mitigation measures necessary before planning permission can be granted.
- 5.12 Whilst the granting of the section 16 application will facilitate the future development of the Site, resulting in some losses/impacts to habitats and species supported therein, this will be sufficiently addressed through the implementation of avoidance, mitigation and compensatory measures detailed for the Proposed Development which encompasses the release and replacement land parcels. As such, the granting of the section 16 application will enable the delivery of net biodiversity benefits by the Site in respect of the Proposed Development.

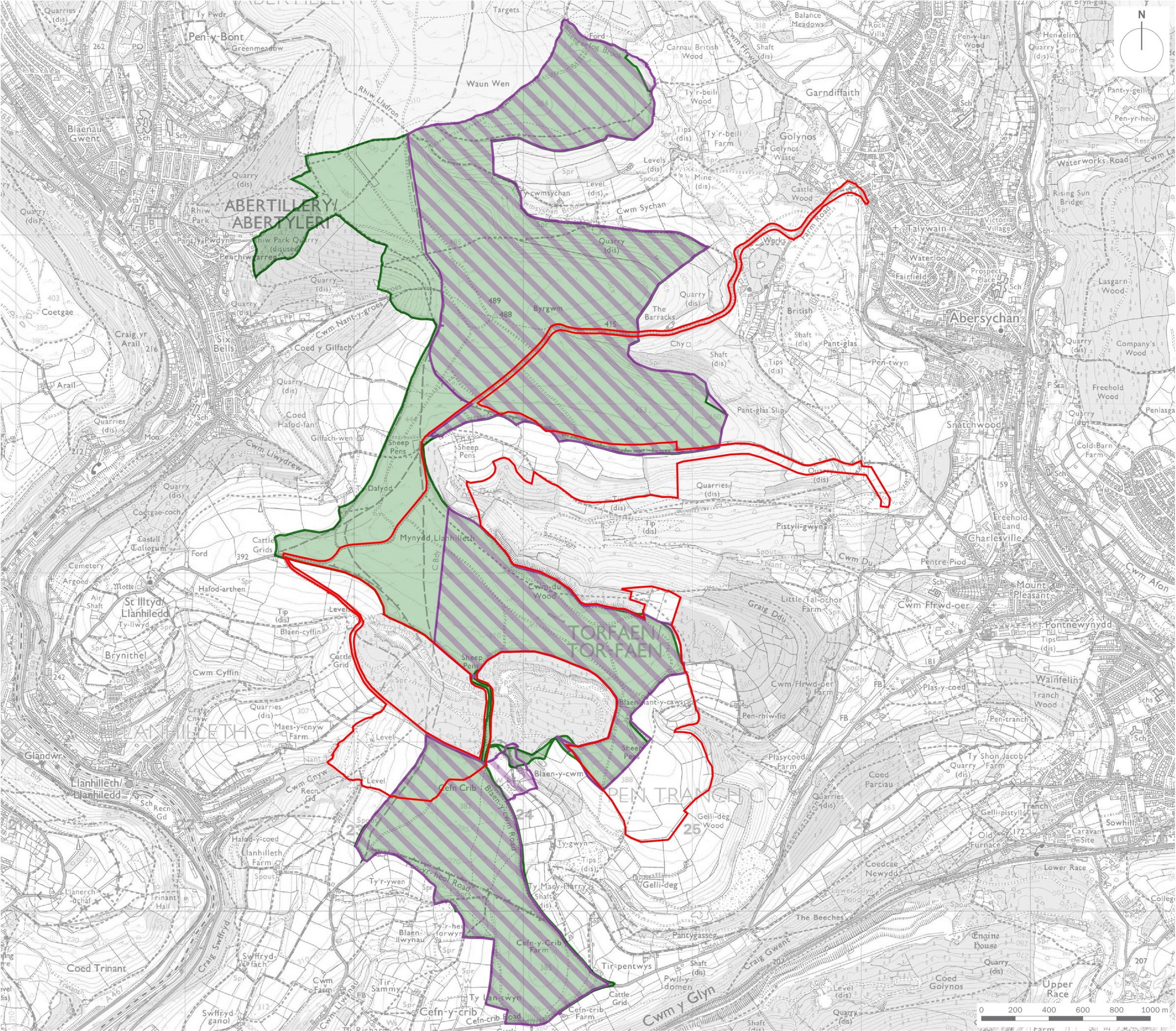
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**Annex EDP 1**

**Location of Mynydd Llanhilleth Common in Relation to the Site Boundary**

(edp6367\_d131 09 November 2022 GYo/KHe)





Site Boundary

Mynydd Llanhilleth Common

Mynydd Llanhilleth Common Site of Importance for Nature Conservation (SINC)

client

**Pennant Walters**

project title

**Mynydd Llanhilleth Wind Farm**

drawing title

**Location of Mynydd Llanhilleth Common in Relation to the Site Boundary**

date	09 NOVEMBER 2022	drawn by	Gyo
drawing number	edp6367_d131	checked	KHe
scale	1:22,000 @ A3	QA	RBa

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dimension partnership

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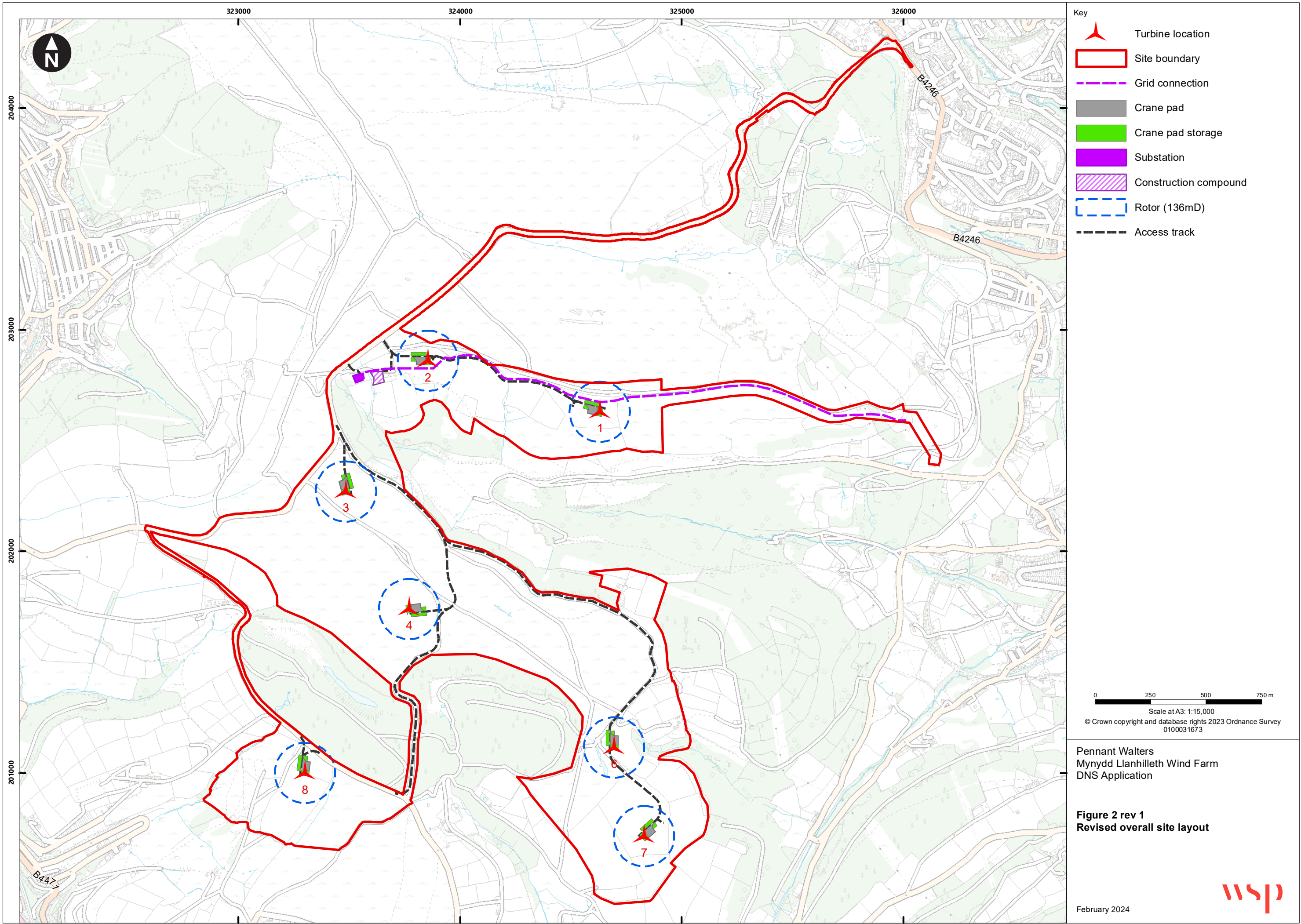




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**Annex EDP 2**  
**Revised Overall Site Layout Plan**  
(Wood, 807095-WOOD-FG-OP-00017\_P02)



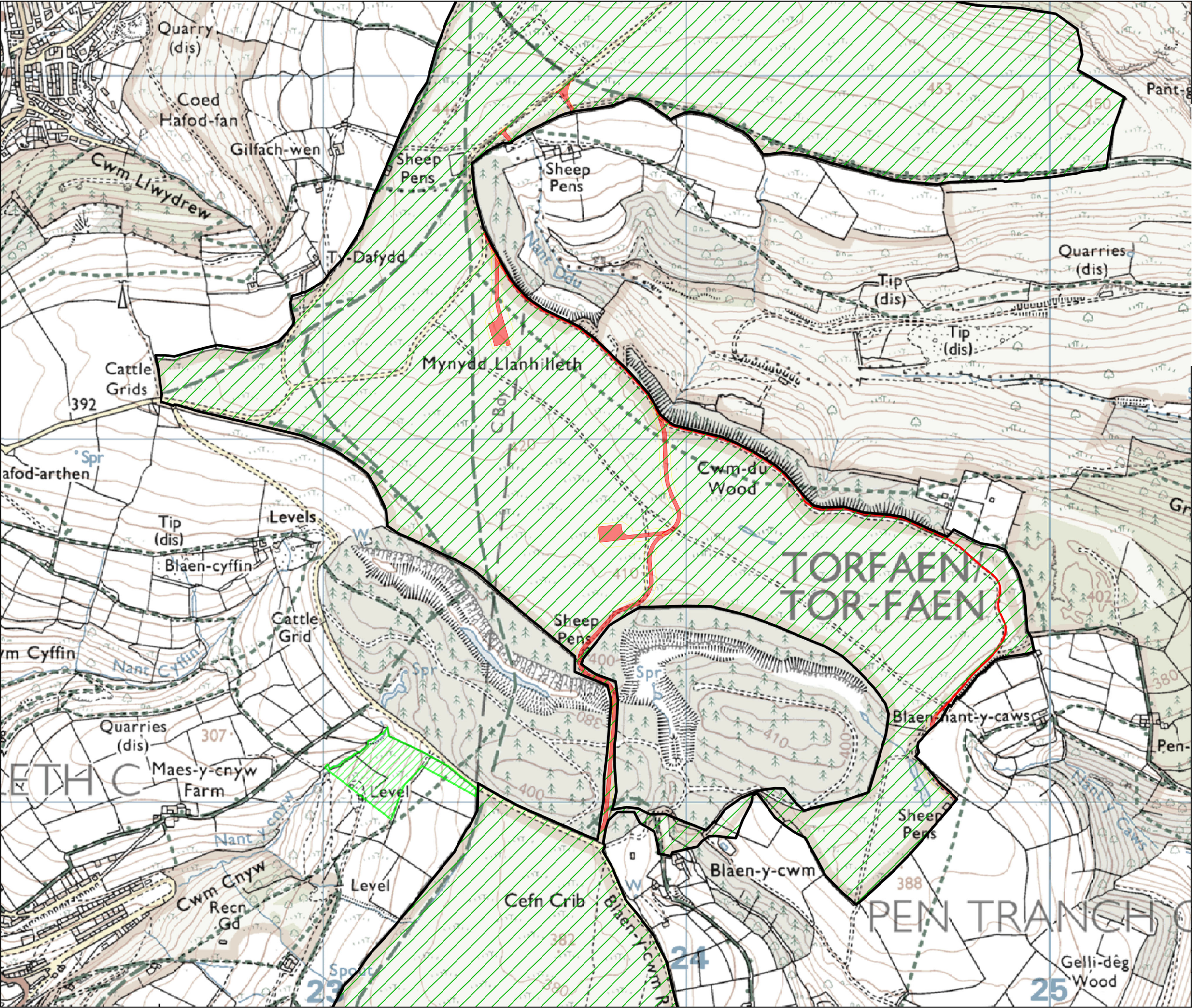


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**Annex EDP 3**

**Common Land: Release and Replacement Land**  
(Pennant Walters, MLWF SK20 Rev. C, 08/11/22)





- NOTES
- 1. Do not scale from this drawing.
  - 2. This drawing is copyright.
  - 3. For information only - Do not use for construction.

COMMON LAND  
(Area = 1402 acres)

COMMON LAND TO  
BE DE-REGISTERED  
(Area = 7.1 acres)

REPLACEMENT  
COMMON LAND  
(Area = 10 acres)

C	T5 removed	SE	11/07/24
B	Title and general update	SE	10/07/23
A	Colours adjusted	SE	23/11/22
Rev	Description	App'd	Date

Status	Planning
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Scheme	Mynydd Llanhilleth Wind Farm
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Title	Common Land: Release and Replacement Land
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**PENNANT  
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Made	SE	08/11/22	Ref	Dwg	Rev
Checked	ML	08/11/22	MLWF	SK20	C
Approved	SE	08/11/22	SK20		
Scale 1:10,000 at A3					





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**Annex EDP 4**  
**Botanical Survey**  
(edp6367\_d016d 14 September 2022 RB/KH)





- client

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**Pennant Walters**

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project title

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**Mynydd Llanhilleth Wind Farm**

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drawing title

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**Botanical Survey**

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date	<b>14 SEPTEMBER 2022</b>	drawn by	<b>RB</b>
drawing number	<b>edp6367_d016d</b>	checked	<b>KH</b>
scale	<b>1:12,500 @ A3</b>	QA	<b>GY</b>

