

6. Ecology

6.1 Introduction

- 6.1.1 This section considers the potential effects of the Proposed Development on terrestrial and freshwater ecological features. Effects on ornithology are considered in Chapter 7.

6.2 Study Area

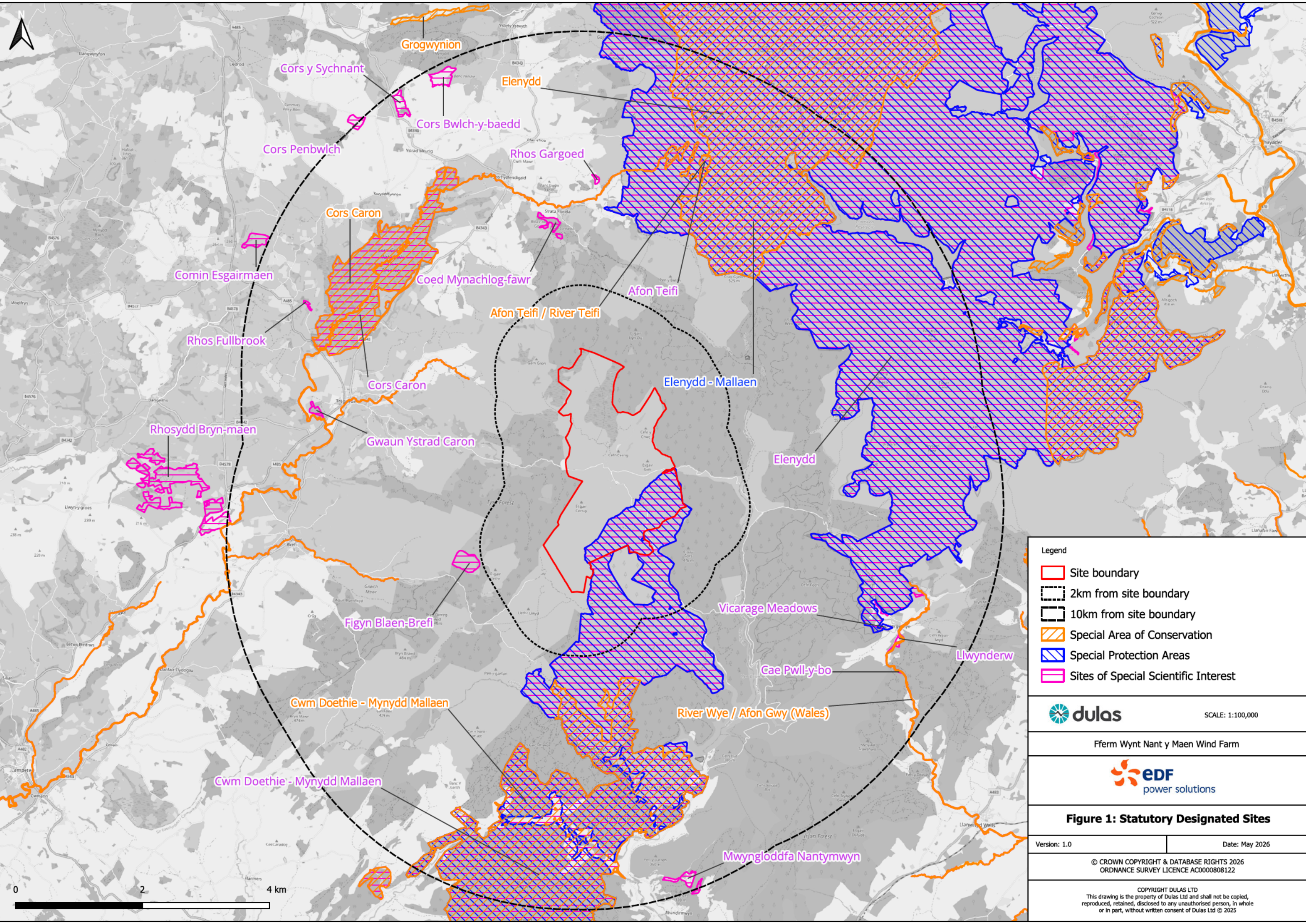
- 6.2.1 The study area for the desk study extends to 2 km beyond the Site for most ecological features¹, but to 10 km for bats (and sites designated for their bat populations) in accordance with NatureScot *et al* (2021) guidance.
- 6.2.2 Ecological survey work has been focused within the Site which extends beyond the Proposed Development. **Figure 1** shows the Order Limits.

6.3 Baseline Context

Site description and context

- 6.3.1 The Site encompasses 1,828 ha of undulating ridges and valleys (ranging from an altitude of 350 m to 527 m) containing several minor watercourses / headwaters, and the Camddwr (river), a tributary of the Afon Tywi. The Site largely comprises rough, open, upland grazing pasture, used for cattle and sheep grazing. Marshy grassland, modified bog and acid grassland cumulatively account for approximately 90% of the land within the Site boundary. Other broad habitats include wet and dry heath, acid / neutral flushes, bracken patches and poor semi-improved grassland. Active blanket bog is very limited in extent. Inland cliffs and rocky exposures are present, albeit limited in extent, largely within the southern part of the Site. The Site is surrounded on most sides by dense conifer plantations.
- 6.3.2 **Figure 1** shows the Order Limits and the location of statutory designated sites.
- 6.3.3 Elenydd-Mallaen Special Protection Area (SPA) overlaps the southeastern part of the Site, but is beyond the footprint of the Proposed Development. This is considered separately in the ornithology Chapter (Chapter 7).
- 6.3.4 Cwm Doethie – Mynydd Mallaen Site of Special Scientific Interest (SSSI) also overlaps the southeastern part of the Site, but is beyond the footprint of the Proposed Development. This SSSI is notified for the habitats present, which include semi-natural broadleaved woodland, species rich neutral grassland, dry heathland and blanket bog. These habitats support a diverse assemblage of lichens and internationally rare species of mosses and liverworts.
- 6.3.5 Figyn Blaen-Brefi SSSI is located approximately 1.9 km west of the Order Limits. The SSSI is notified for its blanket bog habitat, which is dominated by species such as Sphagnum mosses, deergrass *Trichophorum germanicum*, heather *Calluna vulgaris* and cottongrass *Eriophorum* spp. Other bog

¹ Species and designated sites where riverine features are not a reason for their designation and / or there is no hydrological connectivity (i.e. direct links / different catchments).



Legend

Site boundary

2km from site boundary

10km from site boundary

Special Area of Conservation

Special Protection Areas

Sites of Special Scientific Interest

SCALE: 1:100,000

Fferm Wynt Nant y Maen Wind Farm

Figure 1: Statutory Designated Sites

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specialist species recorded include bog rosemary *Andromeda polifolia*, bog asphodel *Narthecium ossifragum* and sundews *Drosera* spp.

- 6.3.6 The Afon Teifi / Teifi River Special Area of Conservation (SAC) is located 2.8 km west of the Site (at its closest point) with minor watercourses in the north of the Site providing hydrological connectivity to the SAC. Afon Teifi is designated for fish species (bullhead *Cottus gobio*, river lamprey *Lampetra fluviatilis*, brook lamprey *L. planeri*, sea lamprey *Petromyzon marinus* and Atlantic salmon *Salmo salar*), habitats (clear water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels and rivers with floating vegetation often dominated by river water-crowfoot *Ranunculus fluitans*), floating water plantain *Luronium natans* and otter *Lutra lutra*.
- 6.3.7 Cors Caron SAC is located 5.6 km northwest at its closest point. Cors Caron is designated for a range of wetland habitats including active and degraded raised bogs, bog woodland, transition mires and quaking bogs and depressions on deep peat. Otter is also a reason for its designation.
- 6.3.8 Other SACs within the wider surrounding landscape include:
- Cwm Doethie - Mynydd Mallaen (2.9 km south), designated for heath and woodland habitats.
 - Elenydd (3.9 km north), designated for dry heath, bogs, lakes and floating water plantain.
 - Afon Wye / River Wye (7.5 km east) is designated for a range of fish species, white-clawed crayfish *Austropotamibius pallipes*, transition mires and quaking bog and rivers with floating vegetation often dominated by water-crowfoot.
- 6.3.9 There are no non-statutory designated sites within 2 km of the Site.

Baseline Survey Methods

Desk study

- 6.3.10 A desk study was completed in February 2025. This included a review of aerial imagery, Ordnance Survey maps and the UK Government's 'Magic' website to broadly assess habitat types and connectivity, and a review of species and non-statutory site data from the West Wales Biodiversity Information Centre (WWBIC). The search area extended to 2 km around the Site (10 km for bats). This helped inform the approach to survey work.
- 6.3.11 The WWBIC data search will be updated prior to submission of the planning application.

Habitats

- 6.3.12 Phase 1 Habitat and NVC vegetation surveys of the Site were undertaken in 2025.
- 6.3.13 Phase 1 Habitat survey followed industry standard guidance (JNCC, 2010). During the habitat survey, the surveyor's previous vegetation survey experience was used to enable 'rapid' mapping of the NVC plant communities (Rodwell 1991, *et seq.*) within the survey area, without quadrat sampling². A peat probe was used to measure approximate peat depths wherever peat was encountered or suspected to be present³.

² Due to the large survey area, quadrat sampling was not undertaken, instead the surveyor's previous vegetation survey experience was used to enable 'rapid' mapping of the NVC plant communities.

³ Used to inform habitat characterisation in accordance with Phase 1 habitat descriptions and not as a comprehensive survey of the presence or absence of peat across the survey area.

- 6.3.14 Habitat and vegetation types recorded in the field were used to assign features to the appropriate Section 7 Habitats⁴ (JNCC, 2019) and also to the relevant EC Annex 1 habitat types as listed in the Habitats Directive (Council Directive 92/43/EEC)⁵. Habitat features have been highlighted where they have the potential to be dependent on groundwater outflow for their existence i.e., GWDTE, as defined in guidance provided by Scottish Environment Protection Agency (SEPA, 2014).
- 6.3.15 Any signs of notable species of fauna or flora were also recorded, to inform the need for further protected species survey.
- 6.3.16 A repeat Phase 1 walkover of the Site has been proposed for 2027. As a change in character of the habitats is not expected, given that management of the Site over the preceding two years is largely the same, the survey will likely use a walkover approach and re-survey examples of habitats within the Site. As in 2025, survey will follow industry standard guidance. Should any peatland or groundwater dependent habitats occur within 250 m of turbine locations, these would be subject to NVC survey using quadrats, if necessary, in 2027.

Bats

- 6.3.17 Bat activity was characterised using static acoustic bat detectors in accordance with industry standard guidance (NatureScot *et al.* 2021). This has involved the seasonal deployment of 16 static acoustic detectors at potential turbine locations (based on the working turbine layout at the time, of 28 turbines) for a minimum of 10 nights during spring, summer and autumn 2025. Song Meter 4 and Song Meter Mini full spectrum detectors were used. A weather station was deployed for the duration of the survey work, to collect site-specific meteorological data which was considered in combination with bat survey results to determine the conditions in which bats were most active.
- 6.3.18 Guidance recommends structures and trees in close proximity to potential turbine locations are assessed for their potential to support roosting bats (defined as 200 m plus rotor radius from turbine locations).
- 6.3.19 A detailed assessment will be needed of some trees once the design has been further developed. Once the proposed layout of the scheme has progressed further, Ground-Level Tree Assessment (GLTA) of trees within 200 m (plus blade length of turbines) of the proposed layout with potential to support roosting bats (based on the findings of the initial survey) will be completed. Close inspection work will then potentially follow for any trees with roost potential.
- 6.3.20 Further static bat surveys are proposed for 2027. As in 2025 the survey will use static acoustic bat detectors to characterize activity in accordance with industry standard guidance.

Otter and water vole survey

- 6.3.21 Otter and water vole presence was determined during surveys which conformed to industry standard guidance (Dean *et al.* 2016).
- 6.3.22 Streams, including their channels and banks, were systematically surveyed for signs of otter such as droppings (spraints), runs and footprints. Particular attention was given to suitable sprainting

⁴ Those habitats that are listed under Section 7 of the Environment (Wales) Act 2016 as 'habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales' (also known as Priority Habitats).

⁵ see definitions provided in the Interpretation Manual of European Union Habitats (European Commission, 2013).

areas such as large, flat rocks and areas where otters are likely to enter and leave streams via runs and slides. Water vole surveys were completed concurrently and signs such as burrows, feeding remains, footprints and droppings were searched for in and around watercourses.

- 6.3.1 Further otter and water vole survey has been proposed for 2027. As in 2025, methods will follow industry standard guidance (Findlay & White 2026, Dean *et al.* 2016 and Dean, 2021). The extent of the survey area is likely to evolve in conjunction with emerging Site design. The work will focus on an area within 200-300 m of infrastructure.

Pine marten and red squirrel

- 6.3.2 Presence and absence survey for pine marten and red squirrel was undertaken in 2025. [REDACTED]
[REDACTED]
The survey was undertaken in reference to guidelines on pine marten and red squirrel survey methodology (Cresswell *et al.*, 2012).
- 6.3.3 Pine marten field signs (such as footprints and scats) were recorded, and where observed, samples were taken for analysis. Potential den areas were also identified using visual observations and a Thermal Imaging (TI) device to detect any heat sources (from ground level) within features on trees suitable for pine marten.
- 6.3.4 The red squirrel survey comprised a visual search for any direct sightings of animals (both red squirrels and grey squirrels), associated field signs and squirrel dreys.

Amphibians

- 6.3.5 An environmental DNA (eDNA) survey was completed of the lake at Gamallt (in the east of the Site⁶) in 2025 in accordance with the instructions of the test kit supplier, Sure Screen Scientifics Ltd, and the industry standard sampling method (Biggs *et al.*, 2014). A HSI survey of the pond was also completed in accordance ARG UK, 2010. Supplementary torching, egg searching or terrestrial search was also undertaken (based on English Nature (2001) guidance).
- 6.3.6 Further survey of bog pools (not visible on Ordnance Survey mapping and identified during botanical surveys after the 2025 survey period) will be completed in 2026 and 2027. As in 2025, methods will follow industry standard guidance.

Reptiles

- 6.3.7 In 2025 an experienced reptile specialist completed a walkover habitat assessment for reptiles (including adder) to determine habitat suitability and quality in detail, inform future Site design, and identify potential mitigation and enhancement opportunities.

Baseline Survey Results

Habitats

- 6.3.8 The principal habitat on Site is marshy grassland (the vegetative community is dominated by purple moor-grass *Molinia caerulea*), which is present across just over half of the Site (55.4 %). Wet

⁶ Llyn Crugnant in the north of the Site was not surveyed as it is situated > 2 km from the Proposed Development.

modified bog (a peatland habitat) makes up a further 24.3 % and acid grassland 10 % of the area, with the three habitats therefore accounting for approximately 90 % of the vegetation within the Site.

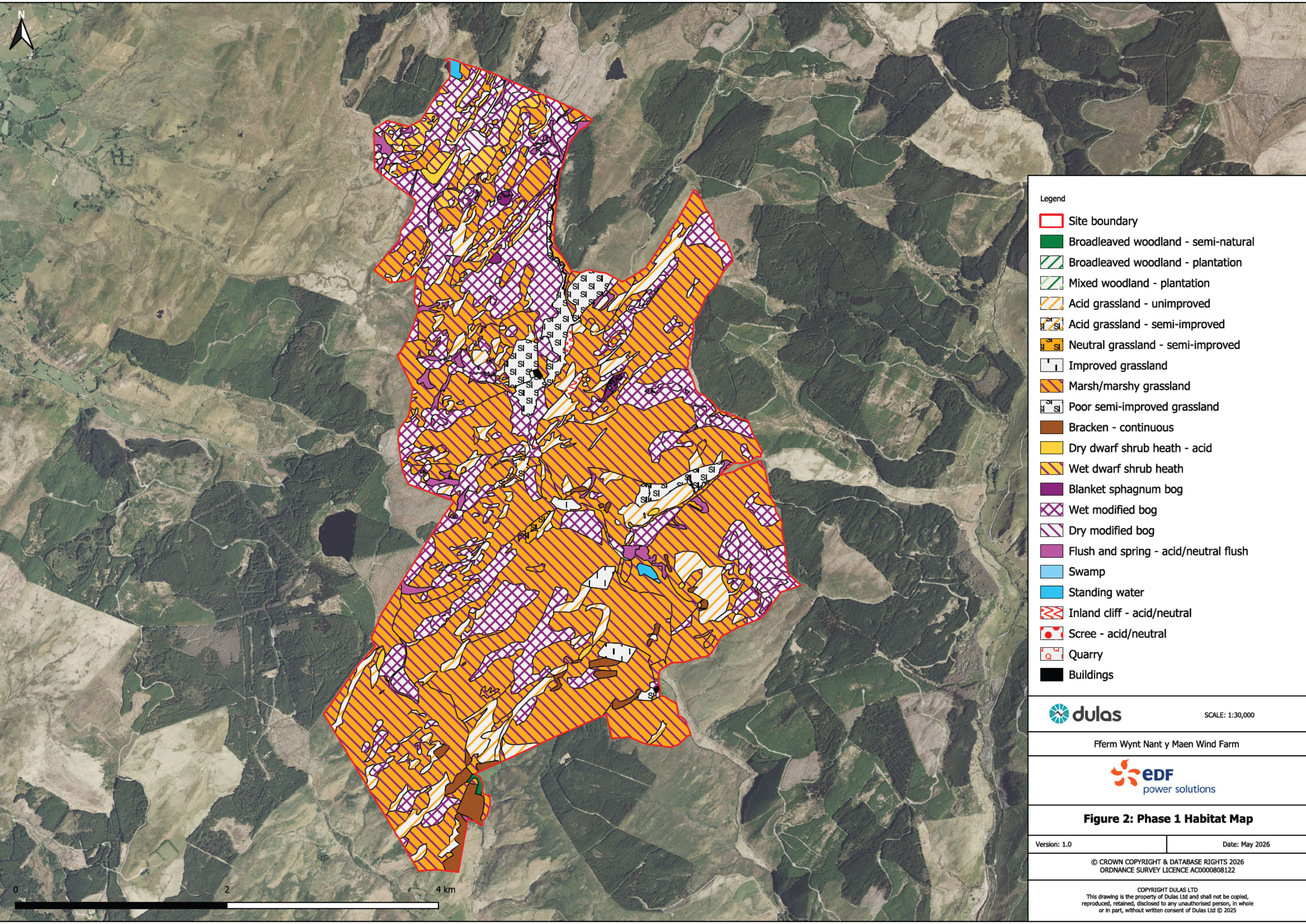
- 6.3.9 Small springs, seepages and flushes are present but uncommon and scattered throughout the Site. Other broad habitats present include patches of dry heath, wet heath, and bracken. Woodland habitat is limited to a small patch of ravine woodland. Scattered willow scrub and self-sown conifers occur locally, and there are a few trees planted around farm buildings. Two small lakes are also present, one in the far north (Llyn Crugnant), the other (potentially artificial) on the valley bottom beside the Afon Camddwr (at Gamallt) at the southern end of the Site.
- 6.3.10 The entire Site appears to have had a long history of heavy grazing and frequent burning, which has caused widespread degradation of the vegetation communities present.
- 6.3.11 Six priority habitats / Habitat of Principal Importance⁷ were identified during the survey:
- Blanket Bog, which is largely present in the far north of the Site (all areas of blanket bog (a peatland habitat) include the Annex 1⁸ habitat 'Blanket Bogs'), covering 448.09 ha (24.5 %).
 - Upland Flushes, Fens and Swamp include all examples of flushes, valley-side and sub-surface springs (including a small area of Annex 1 habitat 'North Atlantic wet heaths with *Erica tetralix*') covering 37 ha (2 %) of the Site.
 - Upland Heathland present as remnant patches on steep valley sides (and include areas of Annex 1 habitat 'North Atlantic wet heaths with *Erica tetralix*' and 'European dry heaths') covering 35.1 ha (1.9 %) of the Site.
 - A small area of Upland Oak and/or Birch Woodland (also Annex 1 'Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles'), covering 1.13 ha (> 0.1 %) of the Site
 - Inland Rock Outcrops and Scree Habitats present on the steeper slopes and ridge covering 4.8 ha (0.3 %) of the Site.
 - Permanent Ponds (open water under 2 ha in area) present as two waterbodies on Site, covering 3.5ha (0.2 %) of the Site.
- 6.3.12 The results of the Phase 1 survey can be found in **Figure 2**.

Bats

- 6.3.13 Automated detector surveys identified a minimum of six bat species using the Site in 2025. These were common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Nathusius' pipistrelle *Pipistrellus nathusii*, (one or more) *Myotis* species *Myotis* spp., long-eared bat species *Plecotus* sp. and noctule *Nyctalus noctula*. Species recorded reflected the results of the desk study. Activity was low for all species.
- 6.3.14 Bat detector locations and total bat activity is presented in **Figure 3**.
- 6.3.15 Common pipistrelle was the most frequently encountered species (0.1 bat passes per hour, P/h) with all other species encountered very irregularly (<0.1 P/h). Weather conditions (wind speed and

⁷ Those listed under Section 7 of the Environment Wales Act (2016)

⁸ Annex 1 of the Habitats Directive (The Conservation of Habitats, Flora and Fauna, 92/43/EEC)



Legend

- Site boundary
- Broadleaved woodland - semi-natural
- Broadleaved woodland - plantation
- Mixed woodland - plantation
- Acid grassland - unimproved
- Acid grassland - semi-improved
- Neutral grassland - semi-improved
- Improved grassland
- Marsh/marshy grassland
- Poor semi-improved grassland
- Bracken - continuous
- Dry dwarf shrub heath - acid
- Wet dwarf shrub heath
- Blanket sphagnum bog
- Wet modified bog
- Dry modified bog
- Flush and spring - acid/neutral flush
- Swamp
- Standing water
- Inland cliff - acid/neutral
- Scree - acid/neutral
- Quarry
- Buildings



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Fferm Wynt Nant y Maen Wind Farm

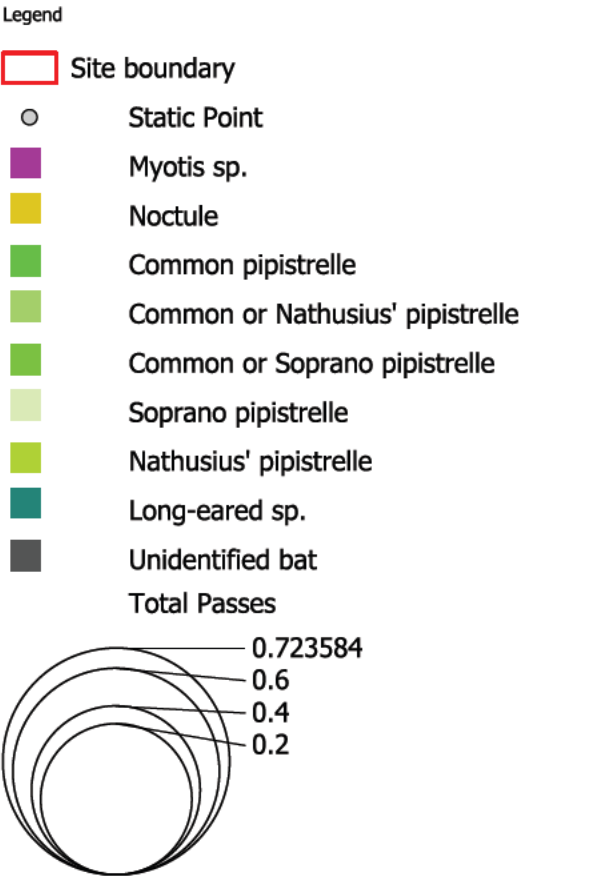


Figure 2: Phase 1 Habitat Map

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SCALE: 1:22500

Fferm Wynt Nant y Maen Wind Farm



Figure 3: Bat Detector Location and Total Bat Activity

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direction, temperature and rainfall) were recorded during the survey and periods of settled dry weather occurred during each survey period. Whilst analysis did show negative correlation between periods of higher wind, temperature or rainfall on Site, the results were not statistically significant. It was concluded this was more likely to be a result of the low bat activity recorded overall.

- 6.3.16 The distribution of activity recorded through the night did not suggest regular local roosting of any species of bat. Passes recorded occurring during the typical emergence times (for each species) were limited to a small number of sporadic passes from common pipistrelle only. The overall low activity indicates that the value of the Site for foraging is very limited. This reflects the open and almost entirely unsheltered landscape within the Site. This is likely to limit large accumulations of invertebrates for prolonged periods during the bat active season.

Otter and water vole

- 6.3.17 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] It is therefore likely that otter periodically use watercourses within the Site for foraging and commuting.
- 6.3.18 Water vole field signs were widely distributed across the Site, with burrows, latrines and feeding remains [REDACTED]. Desk study records also show that water vole is present within the wider landscape including outside of watercourses / bodies (i.e., burrowing in bogs, damp grassland / moorland habitats). As habitats across the Site are similar (i.e., small watercourses with purple moor-grass or rush dominant marginal vegetation running through marshy grassland, or blanket bog where deeper peat occurs) it is likely water vole are present wherever suitable habitat is present on Site.

Pine marten and red squirrel

- 6.3.19 The results of the scat surveys indicate that pine marten is present around [REDACTED]. Due to the small size of the plantation, the species is presumed to occur throughout. Whilst only scat samples were found, several individuals are likely to be present given the distribution of scat samples throughout the whole plantation area. Whilst the plantation is isolated pine martens are mobile creatures and are known to cross or utilise non-wooded habitats including tussock grassland and scrub (Birks, J., 2025). There are records for pine marten in the wider surrounding area⁹.
- 6.3.20 No red squirrel dreys or field signs were recorded during the survey work. However, the data search returned twenty-eight records for red squirrel within the [REDACTED]. Therefore, it is considered likely that red squirrel is present and breed within the wider surrounding area.

Great crested newt (GCN)

- 6.3.21 The HSI of the pond at Gamallt indicated poor suitability to support great crested newts (largely due to the presence of fish, isolation from other waterbodies, limited macrophyte cover and geographic location). The results of the eDNA survey were negative. No great crested newt eggs were recorded during the searches, and no animals were observed during the torching survey. It was therefore concluded that great crested newt is absent from the waterbody. No records for GCN were returned within the search radius.
- 6.3.22 Following the GCN surveys in 2025, habitat surveys identified a further 13 waterbodies within a 250 m buffer of the Proposed Development, potentially suitable for the species. HSI and eDNA surveys are being undertaken in 2026. Should results of eDNA surveys be negative, GCN will be scoped out of assessment.

Reptiles

- 6.3.23 Viviparous lizard *Zootoca vivipara* was recorded at several locations within the Site, and should be considered as widespread. Four records for viviparous lizard were returned within the desk study, the closest is associated with the Doethie valley at [REDACTED].
- 6.3.24 No adder *Vipera berus* or evidence of adder presence was found during the habitat quality assessment; however, good quality adder (and viviparous lizard) habitat was recorded in the southern part of the Site, around the Doethie Fach valley, which comprised well drained slopes with grassland, gorse and heather vegetation communities. Adder are known to be present in the wider surrounding landscape, at the Cors Caron Nature Reserve, a wetland in the River Teifi Valley; however, no records for adder were returned within the 2 km search radius.
- 6.3.25 No other reptile species were recorded on Site or returned by the desk study.

⁹ The desk study returned 3 records for pine marten associated with Cwm Berwyn Plantation, between 1 km and 1.4 km from the western Site boundary

Other Receptors

6.3.26 Data obtained from WWBIC indicates that:

- There are no records of hazel dormouse *Muscardinus avellanarius* in the area.
- Badger *Meles meles* activity (including latrines and digging spots) was recorded within the southern part of the Site in 2024.
- Priority species records include:
 - One record for hedgehog *Erinaceus europaeus* within the search radius.
 - One for brown hare *Lepus europaeus* within the search radius.
 - Three invertebrate species (Lepidopteran) were returned including small pearl-bordered fritillary *Boloria selene* recorded toward the centre of the Site in 2021. Records for hedge rustic *Tholera cespitis* and small heath *Coenonympha pamphilus* in the search radius.
 - One record for common toad *Bufo bufo*, recorded in Tywi Forest in 2016 (approximately 200 m from the northern Site boundary).
- No records for fish species were returned.
- No records for protected or priority vascular plant species were returned.
- No records for invasive non-native species¹⁰ were returned from within the Site. One record for Himalayan balsam *Impatiens glandulifera* was returned within the search radius.

6.4 Embedded mitigation and design assumptions

6.4.1 For the purposes of scoping the following design assumptions have been made:

- The developing design will be informed by the outcome of ecological survey work at the Site and take a step-wise approach to avoiding ecological impacts and in securing Net Benefit for Biodiversity (as set out in Chapter 6 of Planning Policy Wales).
- The design will incorporate stand offs from potential bat roosting habitat (woodland edge, and trees with bat roost potential within neighbouring plantation and elsewhere on-Site as applicable), and known or likely commuting routes (such as watercourses).
- Watercourse crossings, where required to facilitate the construction of access tracks, will be designed in such a way as to minimise impacts to and maintain habitat connectivity along the watercourse.
- Design measures to avoid or minimise impacts on the following will also be implemented as they are identified:
 - any areas of peat and associated priority habitats,
 - Groundwater Dependent Terrestrial Ecosystems (GWDTEs),

¹⁰As Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Invasive Alien Species (Enforcement and Permitting) Order 2019

- other priority habitats in Wales, and
 - places of shelter used by protected species (such as otter holts or badger *Meles meles* setts).
- Construction phase measures to minimise impacts on habitats, protected and priority species will also be detailed in the outline Construction Environmental Management Plan (CEMP).
- An outline Habitat Management Plan (HMP) will be developed to set out the scope of mitigation and habitat and biodiversity enhancement proposals and demonstrate how net benefits for biodiversity and ecosystem resilience will be achieved by the Proposed Development. This will include a clear demonstration of how the Proposed Development addresses the individual components of the DECCA (Diversity, Extent, Condition, Connectivity and other Aspects of ecosystem resilience) Framework.

6.5 Potential Effects

- 6.5.1 The below sections set out the key issues relating to ecology. The rationale for whether the potential effects are proposed to be scoped in or scoped out of the assessment for the construction, operational and decommissioning phases of the Proposed Development, as well the basis for these judgements, are also included.

Construction Phase

- 6.5.2 Direct loss of peatland habitats and effects on the hydrology of peatland habitats will be avoided or minimised through the design process. Any impacts will be mitigated through micro-siting to avoid the highest quality peatland habitats and to minimise disturbance of peat. Habitat enhancement, delivered through a Habitat Management Plan will seek to enhance the local peatland habitat resource. Notwithstanding this there is the potential for significant effects to result from any residual loss or degradation, permanent or temporary, of peatland and other semi-natural habitats resulting from construction phase works.
- 6.5.3 The assessment will also need to consider the potential for significant effects on on-Site and off-Site habitats (including designated sites) resulting from pollution incidents, erosion or sedimentation and nutrient input to watercourses from run off relating to heavy plant presence and exposure of soils to weather.
- 6.5.4 Potential construction phase impacts that could result in significant effects on protected species include:
- Habitat loss and / or fragmentation for protected species (such as water vole), which is known to occur away from waterbodies in the local area (burrowing in bogs, damp grassland / moorland habitats).
 - Killing and injury of species that include otter, water vole, pine marten, viviparous lizard and amphibians.
 - Disturbance leading to displacement of otter, pine marten and other protected mammals.
 - Habitat degradation through pollution events or sedimentation, resulting in impacts on otter, water vole, fish and freshwater invertebrates.

Operational Phase

6.5.5 The principal potentially significant effect will be bat fatality resulting from wind farm operation. The following approach will be employed:

- NatureScot guidance will be used to determine those species at principal risk of population level effects as a result of wind farm fatality.
- Bat activity recorded during the baseline survey work will be analysed for each turbine in each season. This will identify whether there are any indicative turbine locations with consistently elevated levels of bat activity (which may indicate the local presence of a roost or a preferred foraging or commuting route).
- Site-specific weather data will be interrogated to determine whether there is any clear correlation between bat activity and weather variables (such as wind speed and temperature).
- Levels of bat activity (bat passes per hour) will be input to the Mammal Society's Ecobat tool, which enables consideration of whether sites have low, moderate or high bat use at the regional and national levels.

6.5.6 In combination, the above will inform as to whether operational phase mitigation over and above feathering at idle is required.

Decommissioning Phase

6.5.7 Decommissioning is likely to result in similar potential significant effects to construction, although any impacts are likely to be of lower magnitude due to the shorter duration of the work and the likelihood that some infrastructure (such as tracks and hardstanding) will remain in situ.

Table 6.1 - Summary of Likely Significant Effects

Summary of Likely Significant Effects		
Receptor	Potential Effects	Scoped In
Construction Phase		
Designated Sites	Degradation or disturbance to habitats or features of nearby designated sites.	✓
Priority habitats	Loss and degradation (permanent and temporary) through construction work.	✓
Bats	Habitat loss and degradation; displacement due to noise and human activity.	✓
Otter	Habitat loss and degradation; displacement due to noise and human activity.	✓
Water vole	Habitat loss and degradation; displacement due to noise and human activity.	✓
Pine marten	Habitat degradation; displacement due to noise and human activity.	✓
Red squirrel	Habitat degradation; displacement due to noise and human activity.	✓
GCN and amphibians	Habitat loss and degradation; killing and injury for GCN only (If GCN are found to be present).	✓
Reptiles (viviparous lizard and adder)	Habitat loss and degradation; killing and injury.	✓
Operational Phase		
Bats	Killing / injury and disturbance / displacement from collision with turbine blades.	✓
Otter	Killing / injury and disturbance / displacement from maintenance vehicle movements.	✓
Decommissioning Phase		
All ecological features considered during construction.	All impacts considered at construction stage.	✓

6.6 Scoping Assessment

6.6.1 Further to the above, Table 6.2 below provides details on the matters to be scoped out of further assessment within the ES.

Table 6.2 - Matters to be scoped out of the assessment

Matters to be scoped out of the assessment	
Matter	Rationale
Construction Phase	

Matters to be scoped out of the assessment	
Matter	Rationale
Hazel dormouse	The desk study returned no records for hazel dormouse within the search radius. Habitat suitable to support hazel dormouse is limited on Site to a small area of broadleaved woodland. Connectivity (i.e., hedgerow, scrub or woodland bands) across the Site is largely absent and broadleaved woodland parcels in the wider surrounding area are limited, present as isolated parcels. Hazel dormouse are considered likely absent from Site.
Badger	No badger setts were recorded on-site during survey work; therefore, no impacts on badger setts are anticipated. Legislative compliance (to avoid killing or injury of badgers) will be addressed through construction phase controls.
Priority mammals	Due to the relatively small footprint of the Proposed Development, compared to the area of the Site and the implementation of embedded mitigation (construction phase controls described in a CEMP) impacts on priority mammal species are unlikely.
Priority invertebrates	Scoped out, no significant impacts anticipated. Invertebrate assemblage is likely to benefit from habitat enhancement.
Fish	Embedded mitigation (described in Chapter 10) to protect watercourses from the effects of pollution and sedimentation, for example, delivered through a CEMP and a Water Management Plan will also protect local fish populations. With this mitigation in place significant effects on local fish populations are unlikely.
Operational Phase	
Hazel dormouse	Scoped out, no significant impacts anticipated.
Badger	Scoped out, no significant impacts anticipated.
Priority mammals	Scoped out, no significant impacts anticipated.
Priority invertebrates	Scoped out, no significant impacts anticipated.
Fish	Scoped out, no significant impacts anticipated.
Water vole	Scoped out, no significant impacts anticipated.
Pine marten	Scoped out, no significant impacts anticipated.
Red squirrel	Scoped out, no significant impacts anticipated.

- 6.6.2 The potential to scope out detailed consideration of effects on species such as great crested newt will depend on the scope and results of forthcoming survey work and the final development design¹¹.
- 6.6.3 Legislative compliance with regard to other protected and priority species, such as badger, hedgehog and brown hare, should be possible to address through construction phase controls and are unlikely to require detailed consideration in the ecological impact assessment.

6.7 Proposed Assessment Methodology

Legislation and Guidance

- 6.7.1 The ecological survey of the Proposed Development will be prepared in accordance with industry standard guidance and good practice. The following will inform the approach to the design and assessment of the Proposed Development:
- Industry standard guidance on baseline data collection wherever this is available and applicable to the Site. For example: the Phase 1 habitat survey has been undertaken in accordance with the JNCC Handbook (2010) guidelines and all habitats attributed to National Vegetation Classification community types; the otter survey will follow Findlay and White (2026); and the bat survey will be designed in accordance with the principles set out in wind farm specific guidance (NatureScot *et al.*, 2021) (see below).
 - Particular consideration will be given to habitats and species listed under Annexes 1 and 2 of the Habitats Directive (92/43/EEC) (as transposed by the Conservation of Habitats and Species Regulations 2017), Schedules 5, 8 and 9 of the Wildlife and Countryside Act 1981 ('1981 Act') and Section 7 of the Environment (Wales) Act 2016¹² in deriving the detailed approach to the work. Of particular relevance is the Duty, placed on all public bodies under Section 6 of the Environment (Wales) Act 2016, to maintain and enhance biodiversity and ecosystem resilience in Wales through the exercise of their functions (including planning).
 - The assessment will consider relevant national planning policy (including Planning Policy Wales (PPW; currently at edition 12), Future Wales: The National Plan 2040, and Technical Advice Note (TAN) 5 Nature Conservation and Planning) and local policy and planning guidance documents including the Ceredigion Local Development Plan (LDP) and Supplementary Planning Guidance on Nature Conservation.

Assessment of likely significant effects

- 6.7.2 The assessment will be completed in accordance with CIEEM (2024) guidance and will involve:
- Determining important ecological features that require detailed impact assessment through evaluation of desk study and field survey data by:
 - Defining the ecological zone of influence of the Proposed Development; and

¹¹ given the current understanding of great crested newt distribution and lack of evidence on Site to date, this is considered likely.

¹² With reference the revised Section 7 list of species and habitats under the Environment (Wales) Act 2016, published by the Welsh Government on 20 March 2026.

- Considering the importance of ecological features within a defined geographical context (whether habitats and populations are important at the national, regional, county or local levels).
 - Characterising and quantifying effects and assessing their significance through:
 - Consideration of whether effects are beneficial, adverse or neutral; their extent, magnitude, duration, reversibility, timing and frequency; and whether there is potential for their significance to be increased cumulatively as a result of other plans or projects; and
 - Determining the significance of both beneficial and adverse effects. This will be completed in relation to the conservation status of each species at the geographical level at which it has been valued.
- 6.7.3 Assessing the potential of the Site to affect the Favourable Conservation Status (FCS) of species, taking account of available data on their Current Conservation Status (CCS) at the national and local level.
- 6.7.4 The value of any feature that will be significantly affected will then be used to draw conclusions on the implications of development in legislative terms and any additional measures needed to ensure policy compliance (CIEEM, 2024).

Cumulative effects

- 6.7.5 Consideration and assessment of cumulative effects with other developments, in particular wind and solar farm sites, within the vicinity of the Proposed Development will be undertaken as part of the EIA.
- 6.7.6 The effects of the Proposed Development on most protected species and habitats are likely to be relatively localised, however, the assessment of impacts on bats will need to consider all wind farms (and other developments with the potential to impact on bats) within 10 km of the Site (in accordance with NatureScot *et al* (2021) guidance).

Consultation

- 6.7.7 Consultation will be sought with Natural Resources Wales (NRW) and the Ceredigion County Councils ecologist. It is proposed that discussions cover:
- A review of the adequacy of the desk study and field survey proposed/ completed.
 - The main issues in terms of ecological impact assessment (under the EIA Regulations) and the parallel Habitats Regulations Assessment process.
 - How effects can be most effectively mitigated through design and other measures.
 - How the Site might deliver biodiversity net benefit in line with principles set out in Planning Policy Wales Chapter 6 (February 2024).

6.8 Summary of Scoping position

- 6.8.1 The Site is a large, open upland with Cwm Doethie – Mynydd Mallaen SSSI overlapping the southeastern boundary. The Site is hydrologically connected to Afon Teifi SAC and Cors Caron SAC both of which are designated for riverine features including otter. The Site supports six priority

habitats (including Annex 1 habitats and GWDTE's). Protected species surveys commenced in 2025 and recorded a low population of common bat species (representative of the area), evidence of otter, water vole and pine marten. The Site also has potential to support other protected and priority species including GCN and other amphibians, red squirrel, badger, hedgehog, brown hare, invertebrate species and reptiles. Further survey work is programmed for 2026 and 2027.

- 6.8.2 Potential effects include loss, fragmentation or degradation of designated sites and priority habitats during the construction phase, alongside impacts to protected and priority species (listed above). The main potentially significant operational phase effect is bat fatality resulting from collision with turbine blades.
- 6.8.3 The Proposed Development design will be informed by the outcome of ecological survey work at the Site and take a step-wise approach to avoiding ecological impacts and in securing biodiversity net-benefit.

6.9 Acronyms

Construction Environmental Management Plan (CEMP)

Great crested newt (GCN)

Ground-Level Tree Assessment (GLTA)

Groundwater Dependent Terrestrial Ecosystems (GWDTE)

Habitat Management Plan (HMP)

Habitat Suitability Index (HSI)

Local Development Plan (LDP)

National Vegetation Classification (NVC)

Special Protection Area (SPA)

Site of Special Scientific Interest (SSSI)

Thermal Imaging (TI)

West Wales Biodiversity Information Centre (WWBIC)

6.10 References

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