MYNYDD Y GAER WIND FARM

Draft Green Infrastructure Statement

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1 INTRODUCTION

1.1 On 7 February 2024, Welsh Government published the revised Planning Policy Wales (PPW) Edition 12. PPW 12 included revisions to Chapter 6 (Biodiversity), one of these key changes being the recommendation for a Green Infrastructure Statement to be submitted with all planning applications. The aim of this Green Infrastructure Statement ('GI Statement' or 'the Statement') is to evidence how green infrastructure has been incorporated into the 'Application Boundary', defined as the red line boundary of the planning application.

1.2 This GI statement has been prepared on behalf of Cenin Renewables Ltd (the Applicant) in support of an application for (1) The construction and operation of up to 11 wind turbines and associated infrastructure including substation switches, access tracks and turning heads, borrow pits, temporary construction compounds (including holding bays), crane pads, underground cabling, drainage works and biodiversity proposals including creation, enhancement and restoration; and (2) grid connection comprising the installation of underground electricity cables.

1.3 Additional information regarding the development proposals is provided within Chapter 2: Site and Project Description Description of the Environmental Statement (ES).

Policy Context

Planning Policy Wales

1.4 Green Infrastructure (GI) is the network of natural and semi-natural features, such as green spaces, rivers and lakes, that intersperse and connect places. For small developments, GI can include landscaping, grass verges and sustainable drainage systems, whereas on a larger development scale this can consist of, but not be limited to, the creation of species rich meadows, woodlands and the improvement of linkages between areas of existing biodiversity value.

1.5 PPW makes it clear that the quality of development should be enhanced by integrating GI through appropriate site selection and use of creative design. Section 6.2 'Integrating Green Infrastructure and Development' states:

> *'With careful planning and design, green infrastructure can embed the benefits of biodiversity and ecosystem services into new development and places, to overcome the potential for conflicting objectives, and contribute to health and wellbeing outcomes.*
>
> *The green infrastructure statement will be an effective way of demonstrating positive multi-functional outcomes which are appropriate to the site in question and must be used for demonstrating how the step-wise approach (Paragraph 6.4.21) has been applied.'*

1.6 The GI Statement should highlight any baseline data considered and surveys and assessments undertaken, including habitats and species surveys, arboriculture surveys and assessments, sustainable drainage statements, landscape and ecological management plans, open space assessments, green space provision and active travel links.

1.7 Additionally, the GI statement should demonstrate how the Building with Nature Standards have been considered as part of the development proposals and how the step-wise approach has been incorporated.

1.8 PPW Chapter 6 states that the 12 Building with Nature Standards represent good practice and are an effective prompt for developers to improve the quality of their schemes and demonstrate the sustainable management of natural resources.

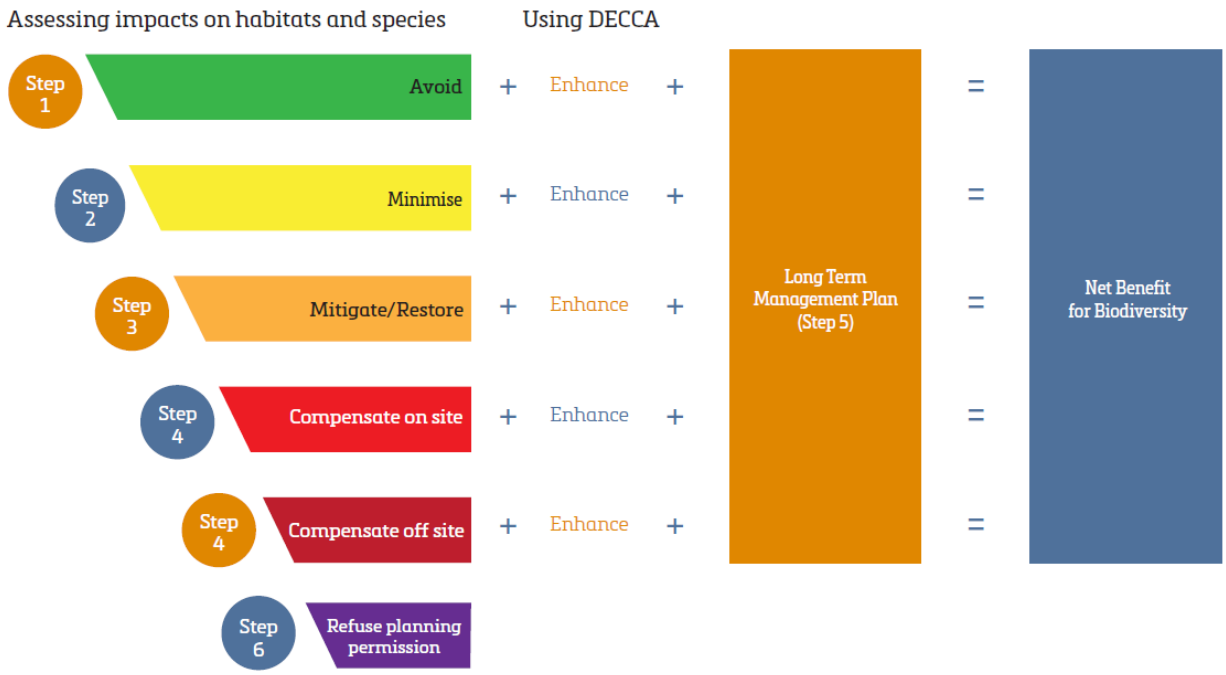

Figure 1: Step-wise Approach (PPW 12)

The Well-being of Future Generations (Wales) Act 2015

1.9 The Well-being of Future Generations (Wales) Act ('the Act') outlines the seven well-being goals:

1. A prosperous Wales
2. A resilient Wales
3. A healthier Wales
4. A more equal Wales
5. A Wales of more cohesive communities
6. A Wales of vibrant culture and thriving Welsh language
7. A globally responsible Wales

Figure 2: The Seven Connected Well-Being Goals for Wales

1.10 The Act outlines a definition of "sustainable development" as 'the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the well-being goals.'

1.11 The Act places a duty on public bodies to align with the 'sustainable development principle' meaning that any bodies must act in a manner which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

Future Wales

1.12 Future Wales is the national development framework, setting the direction for development in Wales to 2040.

1.13 Policy 9 'Resilient Ecological Networks and Green Infrastructure' is of particular relevance to Green Infrastructure. This policy seeks to ensure that *"action towards securing the maintenance and enhancement of biodiversity (to provide a net benefit), the resilience of ecosystems and green infrastructure assets must be demonstrated as part of development proposals through innovative, nature based approaches to site planning and the design of the built environment*".

Local Policy: Bridgend Replacement Local Development Plan 2018-2033

1.14 The Local Planning Authority for the Proposed Development is Bridgend County Borough Council.

1.15 In March 2024, Bridgend County Borough Council adopted the Replacement Local Development Plan (RLDP) 2018-2033 for Bridgend County Borough. The plan supersedes the previously adopted Bridgend County Borough Local Development Plan (LDP) 2006-2021.

1.16 The adopted RLDP constitutes the development plan for Bridgend County Borough and will be the basis for decisions on land-use planning in the area. It sets out key policies and land use allocations that will shape the future of Bridgend County Borough and guide development up to 2033.

1.17 The following policies from the RLDP are relevant to green infrastructure:

- SP3: Good Design and Sustainable Placemaking
- SP4: Mitigating the Impact of Climate Change
- SP17: Conservation and Enhancement of the Natural Environment

- DNP5: Local and Regional Nature Conservation Sites
- DNP6: Biodiversity, Ecological Networks, Habitats and Species
- DNP7: Trees, Hedgerows and Development
- DNP8: Green Infrastructure
- DNP9: Natural Resource Protection and Public Health

1.18 Specifically, Policy DNP8: Green Infrastructure states:

Development proposals will be required to integrate, protect and maintain existing green infrastructure assets and to enhance the extent, quality, connectivity and multi-functionality of the green infrastructure network. Where the loss or damage of existing green infrastructure is unavoidable, appropriate mitigation and compensation will be required.

All developments must seek to maximise, as far as practicable, the amount of green infrastructure on the site, as well as the interconnectedness of green infrastructure within and around the site to the wider green infrastructure network. Development must also maximise opportunities to achieve multi-functionality by bringing green infrastructure functions together.

2 SITE CONTEXT AND EXISTING BASELINE

Development Site Context

2.1 The Site is located broadly north of the M4 motorway and the village of Heol y Cyw, which lies approximately 5 miles from Bridgend. The highest point of Mynedd y Gaer is 295m. The Site includes common land and a network of footpaths. From the junction on the B4280 at Pencoed, the road north to the A4093 near Glynogwr passes through the Site.

2.2 For the purpose of this document, The Site refers to the land use areas within the Application Boundary and includes land within the Applicant's ownership or where the Applicant has an agreement to deliver the necessary Replacement Land or biodiversity measures. The Site is made up of the following elements:

The Turbine Site

2.3 For the purposes of this document, the Turbine Site refers to the area within and in proximity to the eleven turbines and associated access tracks forming part of the Proposed Development. The turbine site is primarily made up of upland acid grassland, dense bracken, agriculturally managed grassland and pasture, heathland and wetland habitats. Most of these habitats are located primarily on common land forming part of Mynydd y Gaer Common. Watercourses (primarily headwaters), hedgerows (defunct and intact) and scrub are also located within the Turbine Site.

2.4 The Turbine Site is actively grazed and is partially fenced, with grazing pressure varying across the landscape. Substantial sections are damaged from off-road vehicles, and a series of Public Rights of Way and Bridal Paths are present, extending from the Taf Ely Ridgeway Car Park in the east to Blackmill in the west.

Wern Tarw Woodland

2.5 Wern Tarw Woodland is a broadleaved woodland comprising post-industrial plantation on ancient woodland soils (PAWS). An offline section of the Proposed Development haul road and a proposed grid connection route are proposed within woodland.

2.6 The woodland is partially covered by two ancient woodland designations (including ancient semi-natural woodland (ASNW)), although most of the woodland, particularly the PAWS and undesignated sections are currently in unfavourable condition. The woodland is scattered with remnant mining infrastructure and spoil, with non-native vascular plants characterised by abundant Himalayan balsam Impatiens glandulifera which forms dense stands in many parts of the wood. The woodland is currently unmanaged with trees on the southern boundary and in the southeast becoming susceptible to windblow.

Replacement Land

2.7 This is an area to the west of the Application Boundary that forms part of the replacement common land for the Proposed Development. It is located west of Heol-y-Cyw, and south of Blackmill, in Bryncethin. As the area of the replacement common land has yet to be fully confirmed, this document refers to the potential land available for exchange. The Replacement Land covers an area much larger than the amount of land needed for replacement common land. Once the extent of replacement common land has been identified, this OBS will be revised accordingly. The Replacement Land comprises grazing pasture, marshy grassland, lines of intact and defunct hedgerows, scattered corridors of broadleaved woodland/scrub and scattered trees.

2.8 No infrastructure development is proposed within the Replacement Land, and it has been provisioned for the purposes of replacement common land only.

2.9 Most of the existing hedgerows are defunct and in poor condition, and much of the marshy grassland is dominated by non-jointed rush species, primarily soft rush Juncus effusus. Biodiversity enhancement measures have been proposed within this area that will support the local community, and benefit the environment, without interfering with common land functions.

2.10 The site location in relation to surrounding landscape, ecology and historic designations is shown in **Figure 1: Constraints plan**, to illustrate the initial context considered for the site.

Landscape

2.11 The Site is located within the 'Mynedd y Gaer' SLA, and LANDMAP Visual and Sensory Aspect Area: Mynydd Gaer, which is judged in the NRW LANDMAP evaluation as being of High value.

Topography and Flood Risk

2.12 The Site comprises mainly grassland agricultural fields.

2.13 LiDAR data for the site indicates that levels range from approximately 100m AOD, at the southernmost point of the access road, to approximately 295m AOD in the vicinity of the proposed Turbines 3 and 6.

2.14 The site is located within DAM Zone A and is located within Flood Zone 1.

2.15 OS maps and NRW data shows that the following waterbodies are located within the vicinity of the proposed development;

- Nant Crymlyn situated in the south west of the site;
- Nant Caner-Mawr in the north of the site;
- Ogwr Fach to the north of the site;
- Nant Caner-Bach to the north west of the site;
- Nant Cwm-Dwr to the north west of the site; and,
- Nant Clwc to the south east of the site.

2.16 Several unnamed ordinary watercourses are also present within the site boundary.

Biodiversity

2.17 Two Sites of Special Scientific Interest were identified within a 2km radius of the Proposed Development, and five Special Areas of Conservation (SAC) were recorded within 15km. Blackmill Woodlands, Dunraven Bay and Kenfig Special Areas of Conservation (SACs). Two national statutory designated sites are located within 2 km from the site; Blackmill Woodlands and Brynna A Wern Tarw Sites of Special Scientific Interest (SSSIs).

2.18 The ecological baseline conditions of the Application Boundary have been studied since 2021. A Preliminary Ecological Appraisal (PEA) was undertaken in 2021 by RPS, which included a Phase 1 habitat survey and desk study. The following further ecological surveys and assessments were undertaken to inform the necessary avoidance and mitigation measures:

- National Vegetation Classification (NVC) surveys;
- Bat surveys – emergence surveys of structures and bat activity;
- Badger and otter surveys;
- Dormouse surveys;
- Great crested newt surveys – eDNA and conventional survey techniques;
- Ornithology surveys; and
- Fungi surveys – eDNA sampling and fruitbody walkovers

2.19 The findings of the PEA and further ecological surveys are set out in specific reports forming appendices to the ES (Volume 3, Appendix 6.1 – 6.5) with summaries of relevant ecological receptors set out in Chapters 6: Terrestrial Ecology and 7: Ornithology of the Environmental Statement.

3 GREEN INFRASTRUCTURE ASSESSMENT

3.1 The proposed development's approach to integrating green infrastructure within the Proposed Development with reference to the step-wise approach is set out below.

3.2 Where applicable, reference has been made to the DECCA[1] framework, to demonstrate how the development proposals have considered ecosystem resilience and the enhancement of ecological networks. The DECCA framework is defined as:

- **Diversity** between and within ecosystems;
- **Extent** of habitats and ecosystems, with the aim of maintaining and increase the area of semi-natural habitat/features and linkages between them;
- **Condition** including structure and functioning of ecosystems, which is affected by multiple complex pressures including climate change, pollution, invasive species, land management neglect etc;
- **Connectivity** between and within ecosystems; and
- **Adaptability** and other Aspects of resilience, i.e. adaptability, recovery and resistance to environmental pressures.

3.3 Full details of the approach to mitigation and enhancement is provided in ES Chapter 6: Terrestrial Ecology and ES Chapter 7: Ornithology.

3.4 A summary of GI measures in relation to the step-wise approach, is summarised in Table 4.1 below.

Table 4.1: Application of the Step-Wise Approach

Step	Development Design Measures
Step 1 – Avoid	Habitats and vegetation communities sensitive to land use change have been avoided as far as practicably possible as part of the Proposed Development design. This includes the avoidance of mire and mire affiliated habitats such as wet heath, sphagnum and valley mires, purple moor-grass and rhos pasture. The turbine locations and proposed access tracks between each turbine have been sited largely within agriculturally improved grassland, bracken and grazed acid grassland habitats. Known areas of grassland fungi assemblages were considered as part of the turbine siting and were relocated away from fungal hotspots, particularly areas with confirmed IUCN[2] red listed species.
Step 2 – Minimise	Turbine numbers have reduced from 13 to 11 to minimise the landtake of the Proposed Development. Additionally, turbines that were originally sited within areas of sensitive habitats (specifically mire habitats), such as Turbine 2 and Turbine 6 have been relocated within habitats of lower biodiversity value (specifically improved pasture and bracken). Access tracks between turbines and the haul road just north of chapel road have been sited on existing bare ground or hardstanding tracks.
Step 3 – Mitigate / Restore	**Turbine Site** The estimated area of permanent habitat loss as result of the Proposed Development from turbine related infrastructure and access tracks at the current stage is estimated to be just over 4 hectares (ha).

[1] Diversity, Extent, Condition, Connectivity and Adaptability as defined by Natural Resources Wales

[2] International Union for Conservation of Nature

	Habitats lost temporarily as part of construction will be reinstated with the aim of restoring them back to their original condition, with the exception of bracken. All habitats removed to facilitate temporary construction areas, holding bays and temporary hardstandings will be reinstated back to their original condition, except for bracken dominated areas. Where areas of bracken are removed to facilitate the temporary construction areas, the land would be reinstated with the creation of acid grassland
	Wern Tarw Woodland PAWS - Restoration To facilitate the haul road construction, it is anticipated that the loss of ancient woodland features would be removed. Habitat loss within Wern Tarw Woodland would be reduced as far as practicably possible as part of the final Proposed Design layout and would be limited to areas of unfavourable conditions. The estimated permanent loss of the woodland is anticipated to be a minimum of 0.2 ha. Whilst woodland removal along the haul route would be located within an area designated as ancient woodland, the extent of loss would be relatively limited. The wider woodland would significantly benefit from the intervention of long-term, sympathetic ancient woodland restoration. It is estimated that more than 6 hectares of ancient woodland could be managed and restored to its former, favourable condition. Restoration of the woodland would include control of non-native species, notably Himalayan balsam, and removal of Japanese knotweed. Sympathetic woodland management would include coppicing select trees throughout the woodland, particularly those along compartment perimeters to create important edge features. Selective thinning and management of the existing woodland structure would also be undertaken to enhance structural diversity. Tree removal, as a result of the proposed access from Chapel Road, would be offset through replacement planting of native broadleaved trees in the wider woodland. This would ensure the Planning Policy Wales 12 criteria of 1:3 for replacement woodland planting is adhered to. Without restoration, Wern Tarw Woodland's condition would continue to decline. The Proposed Development provides the opportunity for the woodland to be restored back to its former conditions, in the long term. Bristle bent dominated acid grassland would be safeguarded where practicably possible, with acid grassland turfs being excavated sensitively and translocated to bare ground patches in proximity to Turbine 8 and 10. The seedbank would also be used to restore areas that have been temporary lost to the Proposed Development. The aim would be to retain as much of the bristle bent dominated acid grassland as possible. Dense bracken, primarily in the north and east of the Application Boundary would be controlled to restore acid grassland habitats back to former conditions. Bracken has rapidly colonised a large area across the Mynydd y Gaer area in recent years. The restoration of acid grassland would also increase the conditions required for grassland fungi to proliferate. The outline proposals for the Wern Tarw Woodland are set out within the OBS (Volume 3, Appendix 6.6).

Step 4 – Compensate On Site	Long term management of bracken is proposed to compensate for the loss of permanently removed improved and acid grassland habitats. The objectives are to reduce the density and cover of dense bracken, particularly areas largely comprising monoculture, to restore the landscape to former acid grassland in the long-term. The minimum area of targeted bracken control is estimated to be 3.5 ha. This has been estimated based on the need to reinstate grassland habitats lost permanently to the Proposed Development, enabling the delivery of a net benefit for biodiversity.
Step 4 – Compensate Off Site	As all compensation for lost habitats is being secured onsite, offsite compensation is not required for the Proposed Development.
Step 5 – Long Term Management Plan and Additional Measures (including enhancement)	An Outline Biodiversity Strategy is to be submitted as part of the full DNS application, and a detailed Biodiversity Strategy would be secured should the consent be successful. A minimum management period of 20 years is proposed, but the term would be fully agreed with BCBC. The extent of areas within the Replacement Land has not been fully confirmed at the time of writing, but it is anticipated that land would be available for providing additional biodiversity enhancement. Potential measures that could be adopted include increasing the wooded cover between Pant Hirwaun and Blackmill to improve the green corridor. Enhancement of hedgerows with the aim of increasing their structural diversity and reducing gaps. Rush management could open up grassland mosaics and wildlife boxes would offer additional nesting and roosting opportunities for birds and bats.

4 BUILDING WITH NATURE STANDARDS

4.1 The BwN Standards are the UK's first GI benchmark for the UK built-environment sector and are good practice guidelines to deliver high-quality and defined GI.

4.2 Each of the standards are set out below, referencing evidence of how the standard is being met. Due to the nature of the scheme as wind energy generation, not all BwN standards are directly applicable to the Proposed Development, but have been considered generally within the GI strategy.

Standard 1: Optimises Multifunctionality and Connectivity

4.3 The purpose of Building Standard 1 is *"… to ensure that green infrastructure features form and contribute to creating an optimal multifunctional network within the development and wider area, contributing towards the restoration, creation and enhancement or expansion of these networks to achieve the maximum benefits for people, wildlife and environment".*

4.4 Wern Tarw Woodland enhancement is proposed to enhance woodland structure and diversity between habitats. This will increase wooded corridors, restore woodland health and increase the foraging and nesting resource for breeding birds and dormice.

4.5 Hedgerow enhancement within the Replacement Land would enable the infilling of existing hedgerows with suitable tree and shrub planting to reduce existing gaps and increase diversity. This would in turn improve connectivity and join up fragmented habitat corridors.

Standard 2: Positively Responds to the Climate Emergency

4.6 The purpose of Standard 2 is *"… to minimise the vulnerability and exposure of the green infrastructure to wider climate-related hazards and impacts and ensure it maximises opportunities to contribute to net zero carbon goals and nature recovery."*

4.7 The project consists of renewable energy generating infrastructure, on the whole it responds to the climate emergency by utilising wind resource for generation of clean energy, reducing national reliance on fossil fuels. Mynydd y Gaer Wind Farm would sustainably supply the total power needs for 60,000 homes, producing local power that would help Bridgend reach its net-zero aspirations, in addition to Welsh Government, national-level goals.

4.8 In terms of GI, enhancement and restoration of habitats which are currently damaged or unfavourable within the Application Boundary such as Wern Tarw Woodland and wet heath will unlock carbon sequestration benefits and natural flood management.

Standard 3: Maximises Environmental Net Gains

4.9 The purpose of Standard 3 Maximises Environmental Net Gains is to *"… ensure new development uses green infrastructure to help mitigate any unavoidable residual harms to the local environment resulting from development, particularly from new sources of air or noise pollution and soil degradation. As with all Standards, the purpose here is to secure benefits that go beyond statutory minimums and encourage greater enhancement of the local environment for people and wildlife, which in-turn aids individual wellbeing, social cohesion, community wellbeing and supports wildlife".*

4.10 The key characteristics of the standard include to:

1. mitigate unavoidable harmful environmental impacts through green infrastructure;
2. improve the local environment by delivering environmental net gains with regards to air, water and soil quality and, where there is scope, space for people and wildlife; and
3. where applicable, address local priorities for environmental net gain – demonstrated through meeting the linked Building with Nature Standards, in particular Standard 4: Champions a Context Driven Approach.

4.11 Where a loss of habitat has been unavoidable, measures have been proposed to offset predicted losses of habitats, including provision of replacement habitat and proposed restoration of damaged areas, or areas currently in unfavourable condition.

4.12 For example, within Wern Tarw Woodland, the whole woodland is to be targeted for restoration rather than just replacing the 0.2ha proposed to be removed. It is estimated that more than 6 ha of ancient woodland could be managed and restored. Acid grassland lost to the development would be replaced through control of bracken across the landscape, including a fringe of bracken adjacent to Blackmill Woodlands SAC.

4.13 Whilst the Replacement Land has been provisioned primarily for the replacement of common land, biodiversity measures could be proposed to enhance the existing green infrastructure which would significantly increase the benefits delivered as part of the Proposed Development.

Standard 4: Champions a Context Driven Approach and Standard 5: Creates Distinctive Places

4.14 The purpose of Standards 4 and 5, respectively are *"… to ensure from the outset that the project team and development's green infrastructure features take account of and is shaped by existing local policy, physical landscape and community priorities"* and *"... to ensure the design of green infrastructure, alongside any built form, is integral to the creation of a great place and used to reinforce the distinctiveness of the local area."*

4.15 Local context is at the forefront of the Proposed Development's siting and design. The site location is determined by Future Wales Policy 17 Pre-Assessed Area for wind energy. 10 of the 11 proposed turbines are located within PAA 9, (Turbine 1 located approx. 80m from the PAA boundary) where there is a presumption in favour of large-scale wind energy development. In the PAA, the Welsh Government has already modelled the likely impact on the landscape and has found them to be capable of accommodating development in an acceptable way.

4.16 The EIA process has influenced the iterative design process of the Proposed Development through the identification of constraints. The Proposed Development has undergone a number of iterations, including the reduction of turbines from 13 initially proposed, to 11, in addition to Turbine 2 relocating to avoid sensitive ecological receptors.

4.17 The Applicant's approach to consultation follows best practice recommendations and has involved dialogue with Bridgend County Borough Council and members of the public.

Standard 6: Secures effective Place-keeping

4.18 The purpose of Standard 6 is *"… to ensure early and effective planning for and implementation of management, maintenance and monitoring of green infrastructure".*

4.19 The key characteristics of the standard include to:

- achieve a more resource efficient approach to management and maintenance; and
- ensure the long-term management and maintenance of the green infrastructure, including through a suitable governance structure that can adapt the management plan as required to deliver the outcomes and benefits, sufficient funding, and appropriately trained and qualified personnel.

4.20 All new habitat creation, restoration and enhancement measures discussed in this GI statement, would be subject to a long-term management, maintenance and monitoring plan to ensure the full and successful establishment of the proposals and the successful maintenance and management of existing vegetation. A minimum management period of 20 years is proposed, but the term would be fully agreed with BCBC.

4.21 A Construction Environmental Management Plan (CEMP) would outline measures to prevent effects arising on biodiversity (and other environmental) receptors during the construction phase. The CEMP would include the finer detail associated with sensitive vegetation clearance, sensitive soil management and pollution control amongst other environmental best practice measures. A soil management plan would also be produced to ensure soils are appropriately maintained, stored and reinstated during construction.

4.22 In a similar manner, an Operational Environmental Management Plan (OEMP) would be produced to ensure potential impacts associated with site maintenance is implemented for the lifetime of the operational development.

4.23 All management plans would be secured by a condition of the DNS.

Standard 7: Brings Nature Closer to People and Standard 8: Supports Equitable and Inclusive Places

4.24 The purpose of Standards 7 and 8, respectively are *"… to ensure green infrastructure features are available and accessible to all, at all times, optimising their use and enjoyment",* and *"… to ensure that green infrastructure is used to enhance social cohesion and overcome cultural barriers, encouraging all people to use and enjoy such features."*

4.25 Part of the Application Boundary is located on the Mynydd y Gaer common, requiring the deregistering of common land to enable the development of infrastructure. The area of Release Land to be de-registered amounts to approximately 21.12 Ha. 21.54 Ha of Replacement Land is offered in exchange to allow for the continued use of common land by the public.

4.26 With regard to public access, access rights over the Replacement Land will be identical to the Common. The construction works will only require temporary fencing around turbine sites, compound and certain track locations and access will be available around these.

4.27 The registered graziers on Mynydd Y Gaer will not be disadvantaged by the proposals, as they will benefit from proposals to reduce the density of bracken on the common, as part of the biodiversity strategy. The controlled bracken would open up former areas of acid grassland available to graze.

4.28 Additionally the Replacement Land would be incorporate measures to enhance biodiversity, including new wooded features and marshy grassland mosaics, increase the diversity of biodiversity to be enjoyed by the local community.

Standard 9: Delivers Climate Resilient Water Management and Standard 10 Brings Water Closer to People

4.29 The purpose of Standards 9 and 10, respectively, are *"… to ensure new development uses green infrastructure as a means of above ground water management for regulating water quality and water quantity and flow",* and *"… to ensure that water management constraints and requirements on a project are used as opportunities to enhance the development to create and sustain better places and benefits for people and nature."*

4.30 The application is supported by a FCA which assesses the potential for flood risk impacts associated with the Proposed Development. The FCA concludes that there is some flood risk from surface water flooding and small watercourses at the site. This is not within the locations of proposed turbines, but some portions of the access track fall within these extents. The development is classified within TAN 15 as 'less vulnerable' development and is considered to be suitable at this location.

4.31 In terms of surface water drainage, it is proposed that filter drains will be placed downgradient of the turbines, which will intercept and attenuate runoff and filter strips will be placed adjacent to the access tracks at the site, which will intercept and attenuate runoff. Gravel infill will provide storage and treatment for surface water flows.

4.32 A CEMP will be prepared and submitted with the application. The CEMP would include industry good practice measures to ensure prevention of contaminated water run-off from all construction areas. The Construction Drainage Strategy will incorporate pollution prevention and flood response measures to ensure that the potential for any temporary effects on water quality or flood risk are reduced as far as practicable during the construction stage. Such measures would be implemented through the CEMPs and associated Construction Method Statements, as set out within the Environmental Statement.

Standard 11: Delivers Wildlife Enhancement

4.33 The purpose of Standard 11 is to *"… enhance existing and create new, linked habitat for wildlife … [support] the conservation status of priority species and habitats and [deliver] positive benefits for wildlife, within and beyond the boundary (and life) of the development".*

4.34 The key characteristics of the standard include to:

- deliver a biodiversity enhancement;
- follow the mitigation hierarchy approach; and
- employ appropriate mechanisms to secure the successful implementation of green infrastructure (e.g. an appropriate managing group, funding and personnel).

4.35 As evidenced in Table 3.1, the step-wise approach has been adopted, prioritising avoidance of sensitive ecological receptors during the design iteration, minimising loss as far as practicable. Mitigation and restoration have been incorporated into the design where by habitats are to be replaced beyond their expected loss, and unfavourable conditions are to be restored to enable a fully functioning ecosystem. Wildlife boxes could be implemented as part of the measures within the Replacement Land, and existing habitats would be enhanced to expand green infrastructure. The Proposed Development would ultimately deliver a net benefit in terms of replacement and restored habtiats.

Standard 12 Underpins Nature's Recovery

4.36 The purpose of Standard 12 is to *"… ensure that opportunities to restore and improve the connectivity of existing and planned for habitats are taken"* to help sustain *"… wider ecological networks and nature recovery goals".*

4.37 Key characteristics of Standard 12 are to:

- identify and, where appropriate, protect existing and planned for key habitat areas for the benefit of priority species;
- identify and protect effective links with or stepping-stones to and from the Application Boundary and existing and planned for, local ecological networks, large-scale areas for wildlife and designated sites beyond the Application Boundary;
- restore, enhance or create effective links with existing on-site habitats (where present) and existing and planned for ecological habitats and networks beyond the Application Boundary; and
- maximise the potential for effective linkages between habitats and enhancement of adjacent and nearby wildlife assets and networks.

4.38 Bracken control is proposed to reduce the density and cover of dense bracken monoculture areas and restore the landscape to former acid grassland in the long-term. This will contribute to nature's recovery by enhancing structural diversity through new acid grassland-bracken mosaics, offering additional opportunities for reptiles, amphibians, ground nesting birds, vascular plants, terrestrial invertebrates and grassland fungi. Additionally, restoration of acid grassland will create new opportunities for domesticated animals to graze.

4.39 Within Wern Tarw Woodland, woodland compartments that are severely degraded from past industrial activity would be targeted for restoration. Full management measures for the woodland are proposed within the OBS and include the phased removal of tree species that are not native to the woodland, protection of semi-mature oak trees through removal of any shrubs hindering their growth, and maturation, protection and halo thinning around ancient and veteran trees. Management of ash to control extent/spread of ash dieback.

4.40 The overall aim is to deliver woodland-wide optimal habitat for dormice, breeding birds, invertebrates, bats and other mammals.

5 NET BENEFIT FOR BIODIVERSITY

5.1 Measures that have been proposed for implementation in the OBS and discussed within the GI statement, in consideration against the stepwise approach, will deliver ecosystem resilience in the following manner:

- Avoidance of sensitive habitats;
- Habitat restoration to reinstate former habitat conditions and reduce pressures on ecosystems;
- Creation of a patchwork of acid grassland habitats; and
- Enhanced features and expanded green infrastructure

5.2 Detailed information on the relevant mitigation / restoration, compensation and enhancement measures are set out in Table 5.1 below. This includes the relative functions and benefits of each habitat type or landscape feature proposed, their extent, and how the DECCA framework has been incorporated to ensure a net benefit for biodiversity can be delivered.

Table 5.1: Habitat Enhancement Measures

Habitat Type/Landscape Feature	Function and Benefits	Estimated Minimum Extent[3]	DECCA Framework
Bracken Management / Acid Grassland Restoration – Turbine Site	• Reduction in widespread bracken cover and bracken monoculture • Creation of acid grassland/bracken mosaics • Restoration of land back to pre-existing acid grassland to replace lost habitat • Deliver optimal conditions for fungi proliferation • Increase in grazing land for domesticated animals • Increase carbon sequestration potential of vegetation	3.5 ha	**Diversity** Reduce the bracken dominance by controlling select areas across the Mynydd y Gaer common, creating a diverse patchwork of acid grassland, bracken and heathland habitats Conservation woodland management to increase structural and species diversity. **Extent** Reducing bracken to increase extent of acid grassland habitats across the Mynydd y Gaer common Restoration of woodland to increase cover of favourable conditions (reduce extent of invasive non-native species) Increase in opportunities available for nesting and roosting through wildlife boxes **Condition** Restoration of poor condition woodland and damaged wet heath. Control of invasive non-native species to reduce pressure and enable native species and habitats to flourish. **Connectivity** Woodland planting, hedgerow enhancement and conservation woodland management to reconnect green infrastructure
Turf Translocation and Bristle Bent Dispersal – Turbine Site	• Retention of acid grassland vegetation and soil • Maintenance of bristle bent plants and seedbank • Restoration of existing bare ground • Encouragement of bristle bent community	0.7 ha	
Wet Heath Restoration – Turbine Site	• Repair and restore damaged wet heath habitat • Encourage natural regeneration of wet heath/mire vegetation communities • Prevent future damage • Restore resilience of ecosystem functioning • Increase ability of Turbine Site to deliver carbon sequestration	2 ha	
Invasive Non-Native Species Control and Management of Undesirable Species – Turbine Site	• Reduce density of Himalayan balsam • Long-term control • Restoration of *Molinia* mire and rush pasture habitat	0.5 ha	
Woodland Conservation Management – Wern Tarw Woodland	• Restore deteriorated woodland and reinstate former ancient woodland conditions • Enhance structural and plant diversity	8 ha	

[3] At the current stage of the Proposed Development and subject to change following Pre-Application Consultation stage.

Habitat Type/Landscape Feature	Function and Benefits	Estimated Minimum Extent[3]	DECCA Framework
	• Improve ecosystem resilience and enable adaptability to environmental hazards • Remove damaging invasives and undesirables • Enhance ability to deliver carbon sequestration functions		with the wider landscape and reduce fragmentation. Control of bracken to restore acid grassland habitats to re-introduce a mosaic, creating stepping stones through the landscape for species to commute. **Adaptability** Restoration of habitats such as woodland and wet heath to restore natural ecosystem processes. Acid grassland restoration to augment the ability of grassland fungi to thrive and to fulfil their roles as decomposers. Control of invasive non-native species to reduce the pressure on native habitats. Halting continued damage to habitats to enable natural regeneration and the development of peat and natural flood management
Hedgerow Enhancement - Replacement Land	• Enhance connectivity and join up fragmented habitat corridors. • Create additional nesting and foraging opportunities for breeding birds, provide refuge for reptiles and amphibians and new commuting and foraging opportunities for bats. • Increase carbon sequestration. • Enhance resilience of ecosystem through bolstering existing hedgerows	-	
Non-jointed Rush Management – Replacement Land	• To increase grazing land availability • To create marshy grassland mosaics and improve grassland structure • Offer new breeding and foraging opportunities for ground nesting birds, particularly wading and farmland birds • Enable natural regeneration of typical marshy grassland plants	3 ha	
Scrapes, Swales and Drainage Features – Replacement Land	• To improve drainage and support reduction of dense non-jointed rushes • Provide new opportunities for foraging bats and invertebrates • Suitable breeding and displaying habitat for amphibians • New foraging opportunities for wading and farmland birds • Improve ecosystem resilience	-	
Tree Planting and Woodland / Scrub Management – Replacement Land	• To enhance woodland structure and diversity between habitats • Increase wooded corridors • Provide additional opportunities for nesting birds, invertebrates and mammals	-	
Wildlife Boxes and Refuges/Hibernaculum	• Provide shelter and additional nesting and roosting opportunities for birds, bats, other mammals reptiles, amphibians and invertebrates. • Contribute to delivery of biodiversity benefits	3 no.	

6 REFERENCES

Bridgend County Borough Council (2024) Local Development Plan 2018-2033.

Welsh Government (2021) Future Wales: The National Plan 2040.

Welsh Government (2024) Planning Policy Wales: 12th Edition.