

ECOLOGICAL REPORT

APPLICATION No.	2020/0173/FUL
ADDRESS	Carn Nicholas Farm Track From Brokesby Road Bonymaen Swansea SA1 7BL
PROPOSAL	Construction of solar farm to include the installation of solar panels to generate up to 9.99MW of electricity with substations, transformers, security cameras, fencing, grid connection and associated development

OUTCOME OF ECOLOGICAL INVESTIGATION

We are unable to support this application in the absence of the following information:

- **Greater survey effort regarding great crested newts and reptiles.**

Documents Received

Preliminary Ecological Appraisal Carn Nicholas, Corylus Planning & Environmental Ltd, 2020

Carn Nicholas Biodiversity Management Plan, Corylus Planning & Environmental Ltd, 2020

Carn Nicholas Drainage Report, Corylus Planning & Environmental Ltd, 2020

Great Crested Newt

Great crested newts are protected under the Conservation of Habitats and Species Regulations 2017. They are protected from deliberate killing and injury, as well as disturbance. Their breeding and resting places are also protected.

A number of ponds were identified during the phase 1 survey which supported average, below average and poor HIS scores for great crested newts. However, HSI is not a replacement for detailed survey and cannot confirm presence or absence. As the species is known to be present at the nearby Cors Crymlyn SAC / Crymlyn Bog SSSI we do not consider this to be a sufficient survey effort to confidently predict their absence from the site. Due to the ground works associated with the development and its proximity to Crymlyn Bog we recommend that an eDNA survey is carried out in the first instance, the results of which will inform further survey effort if required.

Reptiles

Note that all British reptiles are protected under Schedule 5 of the Wildlife and Countryside Act 1981 as amended. It makes it an offence to intentionally kill or injure adder, grass snake, slow worm and common lizard.

The PEA states the following with regards to reptiles 'During the field survey, the banks between fields, the scrub, margins of the semi-improved grassland and marshy grassland habitats were deemed suitable for foraging, refuge and dispersal, the banks also providing suitable hibernation habitat'. The desk study also found records of

common lizard, grass snake and slow worm. Common lizard is also listed within the Kilvey Hill SINC citation.

It is therefore considered a precautionary works approach will not be an acceptable form of mitigation. A reptile survey will be required to identify any reptile population within the site and to inform a suitable mitigation strategy.

Designated Sites Statutory

The proposed development is located a relatively short distance (approximately 0.3 km, at its nearest point) to Crymlyn Bog SAC and SSSI, which also includes the Crymlyn Bog and Pant y Sais NNR and Crymlyn Bog Ramsar site. The development is hydrologically connected to the SAC, as such a HRA will be prepared.

Non-statutory

The development site is located partially within and adjacent to Kilvey Hill SINC.

Policy ER 6: Designated Sites of Ecological Importance of the LDP states the following: Development that would adversely affect locally designated sites of nature conservation importance should maintain and enhance the nature conservation interest of the site. Where this cannot be achieved development will only be permitted where it can be demonstrated that:

- i. The need for the development outweighs the need to protect the site for nature conservation purposes;
 - ii. There is no satisfactory alternative location for the development that avoids nature conservation impacts;
- and
- iii. Any unacceptable harm is kept to a minimum by effective avoidance measures and mitigation, or where this is not feasible, compensatory measures must be put in place to ensure that there is no overall reduction in the nature conservation value of the area.

In assessing the potential harm the Council will consider:

- The individual and cumulative effects which will include impacts during construction;
- The role of the site in the ecological connectivity network; and
- Whether effective mitigation and/or compensation measures have been provided.

The connection/cable route will result in the temporary loss/modification of marshy grassland and scrub within the SINC, as well as the permanent loss of 0.3ha of semi-improved grassland to facilitate the substation.

It is acknowledged that cable works within the areas of marshy grassland will be avoided as far as possible and that the works avoid marshy grassland priority areas. However, this area of marshy grassland falls within the regional corridor and forms part of the focal and core networks. Therefore, to maintain the connectivity within this area no net loss or fragmentation should be ensured. The proposal to reinstate the turfs after laying the cables and the inclusion of reinstated areas along the cable route to be a focus of the BMP monitoring to ensure there has been no long-term impact upon the SINC and marshy grassland network is welcomed. However, we will required further detail within the BMP regarding the monitoring targets and details over remedial actions should they be required.

Biodiversity Management Plan

We welcome the submitted biodiversity management plan document. However, we request that the document is updated in line with the comments given in this document. Namely the following:

- greater detail regarding the process of monitoring and monitoring targets as well as the triggering of remediation, to include outline proposed remedial actions;
- details of the organisation/personnel who are to be responsible for the implementation of the plan;
- the inclusion of habitat enhancements in the form of bat and bird boxes; and
- details of the annual reporting to the Council providing evidence of the previous years and the proposal's for the following years management.

Condition

Prior to commencement of works on site, the applicant will submit a revised Biodiversity Management Plan (BMP) to the satisfaction of the Local Planning Authority.

Bats

The development site and adjacent areas support suitable foraging habitats for bats. The report also states that the mature trees along the access track support potential roost features for bats. It is noted that these trees will be retained and protected from development impacts. Please therefore note the lighting strategy and ensure a suitable no works buffer is implemented around any trees identified as supporting bat roost potential.

Please also include the standard bat informative.

Condition:

If any works are proposed to any mature trees on-site, a bat tree roost assessment survey and any subsequent inspections or emergence/re-entry surveys shall be undertaken by a licensed ecologist prior to any works and submitted to the LPA for approval.

Badger

The report states that the drier and more wooded areas could support badger setts, although no evidence was identified during the survey. The overall habitat on site offered foraging potential for badgers.

Please therefore include the standard badger informative.

Birds

The development site supports suitable habitat to support nesting birds.

We welcome the enhancements with regards to hedgerow and grassland management which will provide benefits for farmland birds within the site.

We also request that a range of bird boxes are also provided on suitable trees within the site.

Condition:

No clearance of grassland, trees, shrubs, scrub (including gorse and bramble) or empty buildings shall be undertaken during the bird nesting season, March to September

Please also include the standard nesting bird informative.

Hedgehog

Records show that there is the potential for hedgehogs to be present in the area. Hedgehogs are protected under Schedule 6 of the Wildlife and Countryside Act (WCA) 1981, which prohibits killing and trapping by certain methods. They are also a UK Priority species. The species is therefore considered one of the UK's target species to avoid further population decline. On this basis, the following Informative must be added to any permission granted:

To avoid killing or injuring of hedgehogs it is best practice for any brash piles to be cleared by hand. Any trenches on site should be covered at night or be fitted with mammal ramps to ensure that any animals that enter can safely escape. Any open pipework with an outside diameter of greater than 120 mm must be covered at the end of each work day to prevent animals entering/becoming trapped.

Condition:

All trenches and excavations must be fenced off or covered-over at night to prevent any animals (hedgehogs, badgers, otters, brown hare and other species) from falling in and becoming trapped. If this is not possible an adequate means of escape must be provided (i.e. a gently graded side wall or provision of gently sloped wooden plank or equivalent). Any exposed pipes and trenches must be checked for trapped wildlife each morning before starting construction activities.

Condition:

In order to retain habitat connectivity for Species of Principal importance, such as hedgehogs, boundary treatments should not be flush to the ground as described in Section 5 of the BMP.

CEMP

Condition

The development shall be implemented as outlined in the Proposed Carn Nicholas Solar Farm: Drainage and CEMP Report for Novus RS Ltd (Report reference: 111/Drainage/v3)', dated February 2020, by Corylus Planning & Environmental Ltd.

Lighting strategy

A sensitive lighting strategy, designed to ensure that the habitats adjacent to the site and the retained/proposed habitat areas are not lit during the construction, or operation phases of the development must be submitted. The strategy must outline avoidance of impacts of lighting on bats and other nocturnal species. This lighting strategy should be submitted to the LPA and agreed with the LPA Planning Ecologist.

The lighting strategy must detail measures to ensure that protected species using the site for commuting and foraging purposes can continue to do so, without disturbance. The lighting strategy must be placed as a condition on any planning permission granted.

Condition:

A lighting strategy must be submitted and agreed with the LPA, prior to any planning permission being granted. The lighting plan shall reflect the Bat Conservation Trust's Bats and Lighting in the U.K. (2018) guidance, with levels kept to 2700-3000 Kelvin.

Solar panels

The solar panels should be designed to minimise the potential adverse effect on flying aquatic insects. It has been shown that solar panels act as an ecological trap, adversely affecting flying aquatic insect populations. This effect can be reduced by breaking up the panels with white framed borders and grid which divides the panel into smaller segments.

Please include the following informative statement

Aquatic insects can be attracted to the polarised light reflected by photovoltaic panels; this can lead to either the death of the insect or disruption to its breeding pattern, which will lead to an accumulative negative impact on insect population particularly near water bodies.

Patterns of painted glass (non-polarizing, white cell borders) on the solar panels will break up the polarised light and reduce the attractant affect.

Ecological On-site Supervision of Works

Condition:

Pre-construction/site clearance checks for protected species (i.e. bats, nesting birds, reptiles, badger, otter etc.) shall be undertaken by a licensed ecologist/Ecological Clerk of Works (ECoW). The construction phase will also be monitored by the ECoW for compliance with legislation, planning conditions and relevant good practice guidelines.

Ecological enhancement

Planning Policy Wales Edition 10 (2018): Biodiversity and Ecological Networks section 6.4 Paragraph 6.4.3, The Environment (Wales) Act 2016 enhanced biodiversity and resilience of ecosystems duty (Section 6 Duty) and TAN 5 Section 40(1) of the Natural Environment and Rural Communities Act (NERC) 2006 all encourage developments in Wales to provide a net benefit for biodiversity conservation with no significant loss of habitats or populations of species, locally or nationally.

Condition:

Before development works commence on site, a scheme of Ecological Enhancement Measures (in the form of a combination of bat and bird boxes) to be provided on suitable trees within the development shall be submitted to and approved in writing by the Local Planning Authority. The approved Ecological Enhancement Measures shall be shown on an Architectural drawing and shall be fully provided no later than 6 months within the completion of the development and shall be retained as such in perpetuity.

Kate Davies
Planning Ecologist

29/05/2020