

Spectrum Ecology

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Addendum to the Preliminary Ecological Appraisal report dated 23rd Feb 2021 rev. 2, as a result of pre consultation comments from the RCTCBC County Ecologist.

Introduction.

Spectrum Ecology were commissioned by Meadow Lane (Hirwaun) Ltd to undertake a preliminary ecological survey (PEA) and assessments of a site being considered for development through the planning process.

A preliminary ecological report and site investigation was produced to understand the current condition of the site and to make recommendations on how development could proceed.

The County Ecologist provided the following observations as part of a pre planning enquiry and has assessed both the site and the supporting documents:

Any future planning application will need to consider/include the following:

- 1. An ecological re-survey of the site when the disturbed ground has regenerated sufficiently, in particular (but not exclusively) to assess whether the site regenerates as habitat that the march fritillary butterfly meta-population of the SAC might use – this is a key issue in relation to the closely situated SAC.*
- 2. Details of the measures to resolve issues raised in the potential threat and impact sections and full mitigation details, as identified in the Spectrum Ecology Report.*
- 3. Provision of ecological enhancement.*
- 4. Any areas of ecological mitigation and/or enhancement will need long-term management and aftercare and details of how that will be secured and delivered would be required as part of any future planning application – incorporation into garden boundaries of new residents may not be sufficient.*

As a result, the following information is provided to supplement the PEA and respond to the points raised above.

Point 1.

The site has been cleared of the majority of vegetation and a significant fill operation was undertaken by a previous landowner which is detailed in the original report. However the current landowner will maintain the cleared vegetation status of the land to ensure that no vegetation will regenerate. Therefore it is highly unlikely that the site will regenerate or succeed back to a habitat suitable to support the Marsh Fritillary. Whilst a re-survey of the site will not be necessary as no regeneration will take place a planning condition for a pre works walkover survey and the retention of an Ecological Clerk of Works throughout the development process, should remove any concerns of the LPA and County Ecologist.

Point 2.

Within the previously submitted PEA, pages 38 and 39 detail the potential impact pathways by which the development could impact the local habitats as well as the wider designated sites. The report suggests mitigation measures as it is clear that the impacts are low and there would be no overriding ecological concerns which could not be overcome by the imposition of suitable and robust planning conditions. Those conditions would include:

Air pollution - CEMP for the construction phase and 95% efficiency for boilers and 20mph speed limit in development for the operational phase.

Water quality - Robust SUDS plan to be agreed by SAB and scheme of street trees.

Loss of surrounding habitats - Retention of 5 metre ecological buffer between development and the site boundary.

Point 3.

Whilst there was no evidence of roosting bats within the buildings currently on site, there was evidence of birds and the potential for amphibians to use the site. Therefore In order that the local planning authority meets its obligations under the Environment (Wales) Act section 6, it is recommended that certain additional roosting and nesting features are introduced to enhance roosting opportunity in the area. In addition reptile and amphibian hibernacula can be introduced in the area of the attenuation pond. All measures described above can be conditioned and a scheme presented to the LPA before development commences.

Point 4.

The areas which will remain as ecological buffers and wildlife corridors will be secured through the imposition of a restricted covenant or easement on the land registry title of each property which will ensure that the buffers remain in perpetuity. Whilst it is understood this measure is beyond the control of the planning authority, the imposition

of such covenants and easements in conjunction with a planning condition removing permitted development rights within the ecological buffer zone have been successful in the recent past, especially on new build properties, in securing the retention of wildlife corridors and ecological buffer zones. The areas would be left to regenerate from the seedbank which is present, providing the best vegetative assemblage for the area and matching what is in the wider area.

Finally it is noted that during the PAC process, consultation with Natural Resources Wales will be undertaken to gather their views especially in relation to the impact of the development on the SAC. As detailed on page 14 of the PEA there are 3 European sites within 5km of the proposed development site. The LPA as the competent authority have not indicated in their pre planning response if a Habitat Regulations Assessment (HRA) will be required as part of any future development on this site and advised that NRW may require this.

It is noted that other developments adjacent to this site have not required an HRA to proceed. With that in mind, an Indicative Concept Plan was found (during an interrogation of the Rhondda Cynon Taff Council's LDP) for land south of Hirwaun within very close proximity of the proposed development site. Policy NSA8 was created which shows that the area has already been designated for development under that local policy. Therefore it is assumed the Local Authority have already undertaken an Appropriate Assessment of that allocation into policy and determined that any pathways of impact to the SAC were negligible or able to be mitigated. It is therefore proposed that as the site is a brownfield site bounded on all sides by Highway infrastructure, then the impact on Marsh Fritillary, which is considered a weak flyer with low dispersal abilities will not be affected by the proposed development.

Legal Protections

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended) whilst they are actively nesting or roosting. This makes it an offence to kill, injure, or take any wild bird, and to intentionally take, damage or destroy the nest of any wild bird while the nest is in use or being built. It is also an offence to take or destroy any wild bird eggs.

Extra protection is afforded to certain birds listed under Schedule 1 of the act. The Act states that it is an offence to intentionally or recklessly disturb any wild bird listed in Schedule 1 while it is nest building, or at, or near, a nest containing eggs or young or to disturb any young of such a bird.

All species of British bat are listed in Schedule 5 of the Wildlife and Countryside Act 1981(as amended) and the Conservation of Habitats and Species Regulations 2010 (which consolidates the European Conservation Regulations 1994 - Natural Habitats etc.) The Habitats and Species Regulations 2010 and amended in 2017 has now been superseded as the UK has now left the EU. The legislation protecting bats post January 1st 2021 is The Conservation of Habitats and Species (amendment) (EU Exit) Regulations 2019.

The legislation regarding roosts applies irrespective of whether the bats are present or not. The Countryside and Rights of Way Act 2000 added the word "reckless" to existing protection against "intentional and deliberate" actions.

Proposed Enhancements for Nesting Birds

Enhancement Works

Most species of birds (aside from the few UK ground nesting species) prefer to nest high up, therefore the proposed nest boxes should be located high up on the gable end of any dwelling above 3metres. the developer will install 2 nest boxes such as the Schwegler 1b on an eastern or northern gable end of any dwelling. It is important that the bird boxes are only in direct sunlight for a maximum of half a day and therefore a southern aspect would not be suitable. The eastern aspect would also provide a more sheltered location, being less exposed to prevailing south-westerly winds. The bird boxes should be ideally placed as far as possible from any opening windows of the proposed development to limit potential disturbance.

It is considered that the above will provide the best possible chances of birds utilising the new nesting provision successfully.

The consultants will be on-site to provide information and advice during the installation.

Proposed Enhancements for bat

Enhancement works

Therefore, it is suggested that on the south or west facing gable ends of dwellings a Schwegler 1FQ or similar bat boxes are fixed to the gable end apex at a height of over 3 metres, but preferably 4 metres. The boxes should be fixed facing in a south or west direction, to maximise potential uptake. In addition, there will be no external lighting affecting the access to the newly installed bat boxes should.

The consultants will be on site during installation to provide information and advice.

Lighting Strategy

Recent studies have shown that conventional halogen floodlight and street lighting types of bulbs produce a high level of UV light a light over a broad spectrum. This has the effect of attracting invertebrates such as moths, mosquitoes, beetles and other insects that are drawn to the light because of the so-called vacuum cleaner effect. Whilst these lights, in some ways, create an 'invertebrate buffet' for light tolerant bats such as the common pipistrelle, they have a detrimental effect on light sensitive species such as Myotis species bats which are present in the site vicinity.

A paper by Daniel Lewanzik and Christian C. Voigt in 2016 which studied the replacement of street lights from conventional lights to LED lights in Germany concluded that *"bats which are sensitive to light might benefit from the increasing use*

of LED," Therefore in order to ensure no harm comes to bats and no net loss of roosting opportunities, LED lighting must be used.

It is clear that the site falls into the E2 category 'Rural' outer suburban location as described in the zoning system provided by the Society of Light & Lighting guidance (01/20) documents and recognised as the standard for the lighting industry. Zone E0 being reserved for Dark Sky Astronomical observatories and E1 for Rural Urban areas with standard street lighting. As such the development site is considered an area of 'Low district brightness' as it is on the periphery of the built environment.

Table 2: Environmental zones			
Zone	Surrounding	Lighting environment	Examples
E0	Protected	Dark (SQM 20.5+)	Astronomical Observable dark skies, UNESCO starlight reserves, IDA dark sky places
E1	Natural	Dark (SQM 20 to 20.5)	Relatively uninhabited rural areas, National Parks, Areas of Outstanding Natural Beauty, IDA buffer zones etc.
E2	Rural	Low district brightness (SQM ~15 to 20)	Sparsely inhabited rural areas, village or relatively dark outer suburban locations
E3	Suburban	Medium district brightness	Well inhabited rural and urban settlements, small town centres of suburban locations
E4	Urban	High district brightness	Town/city centres with high levels of night-time activity

Source: <https://theilp.org.uk/publication/guidance-note-1-for-the-reduction-of-obtrusive-light-2020/>

It is considered that at a local level and to ensure that the lighting scheme is not detrimental to the local bat population, as a whole, the suggested lighting scheme will emit 0% upward light and therefore any 'sky glow' effect will be minimal.