

23/03/2023

EN-3806-01

2021/0479 Land at Dearne Valley Parkway, Hoyland, Barnsley S74 0QA - Condition Discharge (Ecological Matters)

Condition 17

Notwithstanding the submitted details, before above ground works commence, details of external lighting shall be submitted to and approved in writing by the Local Planning Authority. The details shall be provided by a suitably qualified ecologist and clearly demonstrate that lighting will not adversely impact local residential amenity or wildlife using key corridors, foraging and commuting features and roosting sites. The details shall include, but not limited to, the following:

- (i) *A drawing showing sensitive areas, dark corridors and buffer areas;*
- (ii) *Technical description, design or specification of external lighting to be installed including shields, cowls or blinds where appropriate;*
- (iii) *A description of the luminosity of lights and their light colour;*
- (iv) *A drawing(s) showing the location and where appropriate the elevation and height of the light fixings;*
- (v) *Methods to control lighting control (e.g. timer operation, Passive Infrared Sensors (PIR)); and*
- (vi) *Lighting contour plans, both horizontal and vertical where appropriate, taking into account hard and soft landscaping.*
- (vii) *The lighting scheme shall be designed so that it does not impact on the residential amenity of nearby dwellings. Once agreed, the lighting scheme shall be implemented in full for the lifetime of the development.*

Reason: In the interests of protecting residential amenity and local habitats and wildlife in accordance with Local Plan policies D1 and GD1.

The detail required in this condition is clearly outside of the remit of an ecologist in terms of the technical specification, lighting design and residential amenity points. Therefore the lighting design and associated plans have been produced by BWB in the form of the following documents:

- RJB-BWB-00-XX-DR-E-2302-D2-P4 Proposed External Lighting Lux Plot Site Plan
- RJB-BWB-00-XX-DR-E-2301-D2-P4 Proposed External Lighting Site Plan

Having had chance to consider these documents and discuss the proposals with the project's lighting engineer, we can provide the following consideration in relation to the requirement to avoid impacts on local wildlife, key corridors, foraging and commuting features, and roosting sites.

In these situations, bats tend to be the primary concern, as they are likely to be the group most easily disrupted by lighting and, as here, they provide a useful proxy in considering the impact on wildlife more generally. Bat activity surveys (ER-3806-04) have been carried out previously and have established that "the Site is used by a low number of common species of bat, with activity focused around the eastern boundary and the off-site pond - the proposed development is unlikely to have any significant impact on local bat populations." The Site has not been found to support existing

roost locations and these are not suspected in proximity to the Site. Two bat roosts provided in the developed Site and detailed in the Biodiversity Management Plan (ER-3806-08) will be mounted above the 4m height of the down lighting on the northeast face of Unit 3.

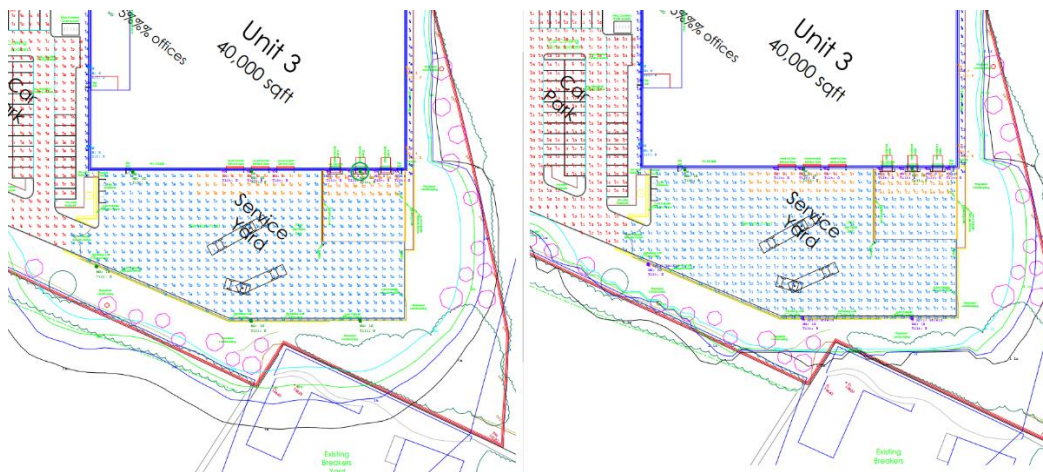
Considering the proposals provided against published information on lighting and bats (*Stone et al 2015** being considered to provide a useful summary thereof.) We would note the following:

Where impacts on bats from lighting could be expected, the first hierarchical consideration would be avoidance of lighting (not using it) – here this is not an option as there is the safe operation of an industrial / commercial Site to ensure, and the Site and wildlife corridors are already impacted by lit premises to the south and a lit main-carriageway to the north and west.

The next consideration should be timing – limiting the duration of lighting. Here the lighting consultant has indicated control will be via a timeclock and photocell arrangement with manual override facility, so lighting will be able to respond to downtime through reducing levels. There are however no restrictions on Site operating times, so there is potential for operation throughout the night.

The next consideration should be reducing the intensity of light – this is not possible here. As the lighting consultant has set out below, there are other considerations in terms of safe operation which require minimum light levels within the Site. Additional mitigation has been discussed with the lighting engineers which would see back plates fitted to lighting – this would reduce the intensity of light spilling from the Site. This has allowed better protection of the woodland to the south-east as shown below.

Figure 1 - Reduction of light-spill to the south-east (left to right)



The next consideration should be light type. Working with the lighting consultant we have been able to reduce the K value of lighting from 4000 down to 2700 (into the warm range) – which is felt to be one of the better options in terms of reducing impacts.

In summary:

The proposals now contain mitigation in terms of the potential impacts on adjacent wildlife habitat from lighting. The lighting type chosen and the use of directional lighting and back-plates reflects current best practice advice. Vertical contour modelling is not considered necessary in relation to modelling impacts at this Site and horizontal contour plans show that light-spill from the Site into semi-natural habitat rarely exceeds 1 lux.

**Stone et al (2015) Impacts of artificial lighting on bats: A review of challenges and solutions Article in Mammalian Biology - Zeitschrift für Säugetierkunde · February 2015 DOI: 10.1016/j.mambio.2015.02.004*

Condition 9

No vegetation clearance shall take place between the months of March and August inclusive unless nesting birds have been shown to be absent by a suitably qualified ecologist in accordance with written details to be submitted and approved by the Local Planning Authority.

Reason: In the interests of biodiversity and in accordance with Local Plan Policy POLL1 Pollution Control and Protection.

The requirement for precautions relating to nesting birds has been set out in the Sites Construction Environment Management Plan - Biodiversity (CEMP) (ER- 3806-07). Clearance here is now due to take place during the period March - August 2023, therefore pre-clearance checks for nesting have been advised by us and commissioned by Gregory Properties Ltd.

A nesting bird survey will be completed by a suitably trained surveyor. This will be undertaken a maximum of 48 hours prior to vegetation works commencing. It may be that multiple survey visits are required where vegetation removal will span more than two days, or be carried out in phases. In some cases deviation from this 48 hour window can be appropriate, this must be by prior agreement with the Ecologist. Clearly this cycle does not allow the survey's approval by planning prior to clearance works.

Where a nest is found it will be marked on the ground / vegetation using barrier tape / flags and reported in person and in writing to contractors. All active nests are protected by law from destruction, while a range of species are afforded special protection which extends to disturbance while on an active nest. As such, any active nests identified would be retained in situ until any chicks have fledged. Where this is the case, follow up surveys may be required to check when nests are no longer active.