



**LIGHTING
DESIGN
STRATEGY
FOR
BIODIVERSITY**

**Bowland Lakes Leisure Village (Caravan Park and Fishery Lakes)
Cleveley
Bank Lane
Forton
Preston
PR3 1BY**



10th November 2023



Introduction

Background to the scheme

Planning application [**23/00308/FUL**] has been approved in respect of proposals to develop a small area of land at Bowland Lakes Leisure Village (Caravan Park and Fishery Lakes), Cleveley, Bank Lane, Forton. Preston PR3 1BY. The proposals for the site relate to provision of an additional eight, high quality holiday lodges, with access road, parking, drainage and landscape works.

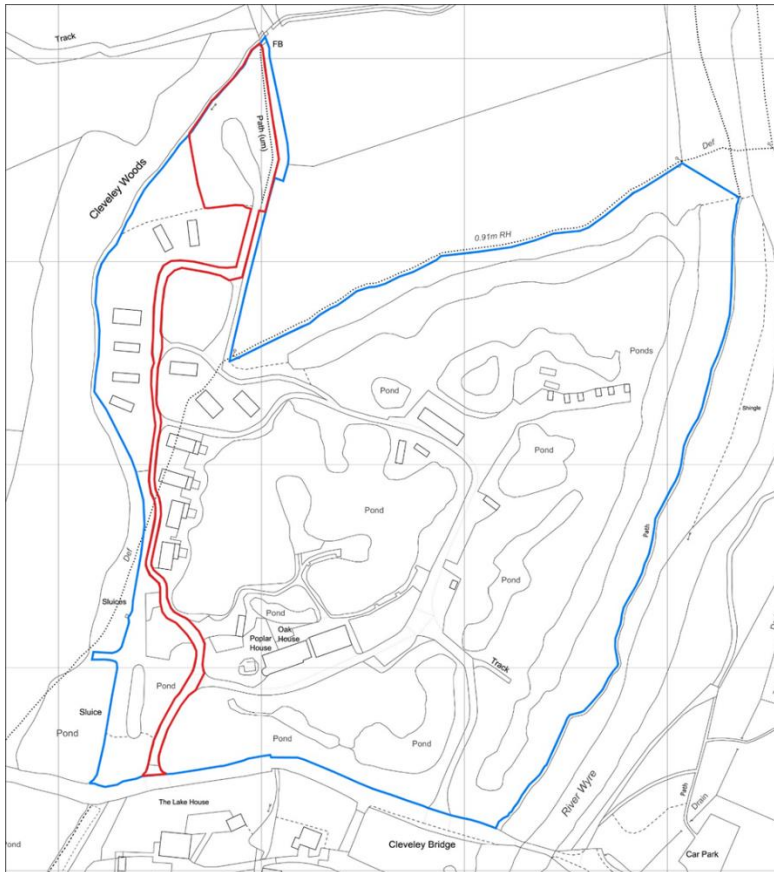
The proposals have received planning consent [**23/00308/FUL**], issued subject to conditions. This document has been produced to assist with the requirement to have a Lighting Design Strategy for Biodiversity.

Site context

The site is located at National Grid Reference 350045, 450371 and sits 0.8 miles north of the settlement of Scorton and within 0.6 miles from the A6 corridor, adjacent to the river Wyre and is well screened with mature planting. The site is located within a countryside area with Lancashire County Heritage sites adjacent.

The site has a well-established course fishery and holiday-let lodge park with good access to an existing public rights of way (that is retained) and the Scorton picnic area.

The whole existing site extends to approximately 18.5 acres. The new, additional development proposal, including the access road, comprises approximately 3,645 sqm within the existing site footprint. The southern boundary is formed by Cleveley Bank Lane; the western boundary is formed by a steep tree embankment known as Cleveley Woods; the east boundary is formed by the river Wyre with the north boundary being open pasture. There is an existing vehicular and pedestrian access at the south west corner of the site onto Cleveley Bank Lane. Further pedestrian access is provided via PROW 2-19-FP 43 and 2-19-FP 42.



To assist with discharging relevant conditions associated with the approval for the development, the condition considered relevant is the Lighting Design Strategy for Biodiversity:-

Condition 11

"Prior to first occupation, a "lighting design strategy for biodiversity" for areas to be lit shall be submitted to and approved in writing by the local planning authority. The strategy shall:

a) identify those areas/features on site that are particularly sensitive for nocturnal animals and that are likely to cause disturbance in or around their breeding sites and resting places or along important routes used to access key areas of their territory, for example, for foraging; and

b) show how and where external lighting will be installed (through the provision of appropriate lighting contour plans and technical specifications) so that it can be clearly demonstrated that areas to be lit will not disturb or prevent the above species using their territory or having access to their breeding sites and resting places.

All external lighting shall be installed in accordance with the specifications and locations set out in the strategy, and these shall be maintained thereafter in accordance with the strategy. Under no circumstances should any other external lighting be installed without prior consent from the local planning authority.

Reason: To safeguard residential amenity and in the interests of public safety in accordance with Policy CDMP1 of the Wyre Local Plan (2011-31)”.

As set out in the planning application, the most recently approved scheme [23/00308/FUL] represents an internal addendum of 8 holiday-let lodges, within the existing boundary of Bowland Lakes Leisure Village (Caravan Park and Fishery Lakes), itself approved under [05/00334/FULMAJ]; [16/000153/FUL and [11/00261/FUL].

The site has an established use as a recreational fishery with associated holiday use consisting of a mix of 20 existing holiday chalets and lodges, and 6 camping pods.

Existing site lighting

As a feature of its countryside location and to reflect the tranquil and rural character of Bowland Lakes Leisure Village (Caravan Park and Fishery Lakes) the existing site, as described above, does not feature any elevated street style lighting columns. Instead, low level light fittings are located on the actual holiday-let lodges, utilising downward dispersal, low-lux, LED luminaires. It should be noted that occupancy varies between 25 and 40 %.

Lighting Design Strategy for Biodiversity

This Lighting Design Strategy for Biodiversity should be read and considered in conjunction with all the submissions made as part of planning application [23/00308/FUL].

Although Bowland Lakes Leisure Village (Caravan Park and Fishery Lakes) is not designated as a Dark Sky location, based on experience gained at another of its sites, which is designated as a Dark Sky location - Pure Leisure Group proposed to use the knowledge and experience gained to adopt those principles into its Lighting Design Strategy for Biodiversity for the development approved under [23/00308/FUL].

Voluntary adoption of a Dark Sky policy based lighting design strategy achieves significant benefits in terms of biodiversity, with both sharing commensurate aims and objectives.

The site location and layout is as described in the planning application, with the site being secluded, remote and screened by trees. As stated earlier there is very limited artificial light within the area covered by the proposed development; limited lighting from adjacent properties; and there is currently no widespread road lighting in close proximity.

To reduce the potential for lighting to affect sensitive biodiversity/ecology the measures outlined includes minimising light onto boundary hedgerows providing dark corridors for light sensitive species that may inhabit the site.

The aim of the lighting strategy will be to ensure appropriate and un-obtrusive lighting design is applied to the development. Additionally, the luminaires are designed and positioned such that light spill/pollution is minimised.

Balanced approach to a lighting strategy

The proposed development will require lighting for safety, amenity and security during the hours of darkness, whilst ensuring that potential light spill onto the boundaries of the site is minimised.

Key areas requiring lighting includes the approach to and the frontages of the holiday-let lodges, achieved by:-

1. Dwelling frontage amenity lighting (wall mounted)
2. Correlated colour temperature (K) - 2700 K (max)
3. Luminaire type - UNILAMP Bronco (or equivalent)
4. Luminaire style - surface mounted (down)
5. Typical Luminaire (see below).



- Light source - LED
- Mounting height - 1.8m to 2.0m (max)
- Mounting type - Wall mounted to lodge frontage
- Luminaire tilt - Vertically surface mounted
- Controls -PIR sensor

All lighting mounted to the lodge frontages will have a maximum correlated colour Temperature (CCT) of 2700K to reduce the impact on biodiversity/ecology, whilst providing a warmer ambience. The use of warm white light sources typically emits lower quantities of blue wavelength light, therefore minimising potential impacts on biodiversity/ecology attracted by blue wavelength light. Additionally, the use of Light Emitting Diode (LED) sources emit negligible levels of Ultraviolet Light (UV) and infra-red light (IR) than traditional discharge or incandescent light sources.

All wall mounted luminaires are to be mounted at a maximum height not exceeding 2.0 meters to limit the levels of obtrusive light pollution.

All luminaires mounted on the exterior façade of the lodges must be installed with a 0° tilt angle to reduce the potential for light spill outside acceptable limits beyond the lodge boundary.



Lighting Controls

Lighting to the lodge frontages will be controlled via a PIR and be internally switched to enable the lighting to be switched off when not in use.

This approach has been taken to ensure that the lighting within the site minimises the level of spill light on the site boundaries during the hours of darkness.

The indicative light spill model demonstrates the ability to provide lighting for the proposed development and to ensure that a sensitive lighting solution is installed.

The above complies with the requirements as set out in GN08/18 Bats and Artificial Lighting in the UK – Bat Conservation Trust and Institution of Lighting Professionals.

The proposed lighting uses luminaires that focus the light down onto the ground, reducing the likelihood of upward light and light spill.

Conclusion

The lighting strategy outlines the criteria for the lighting design of the proposed development which aims to ensure that the lighting is fit for purpose whilst maintaining sensitivity towards the site boundaries.

To ensure that the potential for obtrusive light is minimised, it is necessary to restrict the mounting heights of the luminaires, tilt angle and lumen output to those specified.

The lighting to the front of the lodges are positioned at a maximum height of 2.0m, with PIR control to limit the hours of operation during darkness.

In conclusion, the lighting strategy show that the details outlined implementing the strategy will ensure the lighting will be kept to the confines of the proposed development, with light levels typically less than 0.2 lux falling on the boundaries, where sensitive ecology may be present and minimising the potential for significant levels of obtrusive light to a negligible level.

It is requested that the proposals as set out in this Lighting Design Strategy for Biodiversity be approved to enable Discharge of Condition 11 associated with planning application [**23/00308/FUL**].