

Our ref: P25-665 UoS Harpur Hill Lighting Review

Your ref:

18 December 2025

James Hollingsworth
Castle Owen

BY EMAIL ONLY

Dear James

Re: Sheffield University Research Centre, Harpur Hill, Buxton, SK17 9NL – Lighting Strategy Review

BSG Ecology were commissioned in December 2025 to provide ecology advice in relation to proposed installation of lighting at the Sheffield University Research Centre (the Site). Full planning permission has been granted by High Peak Borough Council for the “*erection of fencing and a gate, and installation of lighting and CCTV, for security purposes*”. Planning Condition 5 associated with planning application number HPK/2025/0209 states:

“Prior to the installation of any lighting columns, a detailed Lighting Strategy which provides full details of the chosen luminaries, their locations, and mitigating features (e.g. dimmers, PIR sensors, and timers) and documents how the proposals will comply with Guidance Note 08/23 - Bats and Artificial Lighting at Night (BCT and ILP, 2023) shall be submitted to and approved in writing by the Local Planning. The development shall be carried out in complete accordance with the approved Strategy.”

BSG Ecology has reviewed the Lighting Strategy documents alongside ‘Guidance Note 08/23 - Bats and Artificial Lighting at Night’ (BCT and ILP, 2023) to assess how the Lighting Strategy takes into consideration the guidance within this Note. The following documents have been reviewed:

- The ‘Site Location Plan’ produced by Castle Owen (Ref: 23107-CO-XX-XX-DR-A-01000-P06, dated 24 March 2025).
- The ‘Site Plan, Boundary Fence and Details’ drawing, produced by Castle Owen (Ref: 23107-CO-XX-XX-DR-A-60001-P09, dated 25 April 2025)
- The ‘External Lighting Assessment Report’ (Castle Owen/A&P Dynamic Design Ltd/University of Sheffield), dated March 2025. This includes three appendices: the ‘Lighting Calculation Report’, ‘Lighting Layout Drawings’ and ‘Lighting Equipment Schedule and Datasheets’.
- The Thorlux Lighting ‘Starguard’ datasheet and the Thorlux Lighting ‘Acorn’ datasheet. Information in these documents supersedes some information within the External Lighting Assessment Report following discussions between BSG Ecology and Castle Owen whereby colour temperature was reduced to 2700 K.

This letter report details the findings of the review.

Mitigation hierarchy

Avoidance

The Guidance Note sets out the mitigation hierarchy of avoidance, mitigation, compensation as a key message: *“impacts to biodiversity should be avoided in the first instance through design and where this has been clearly demonstrated not to be possible, appropriate mitigation needs to be put in place. Compensation is the least desirable option, so all other avenues should first be explored and ruled out.”*

The External Lighting Assessment Report states that the operating hours of the lighting will be between 08:00 and 17:30. Planning condition 3 stipulates these timings, and states: *“The lighting hereby approved shall operate solely between the hours of 08:00hrs and 17:30hrs on any given day”*. Based on a review of local sunrise and sunset times for Buxton¹, the lighting would only be on before sunrise from the start of December until the end of January, and on after sunset from the end of October to the end of February. The UK bat active period is generally considered to be between April and October inclusive, though activity is also weather and location dependent in April and October (Collins, 2023²). Therefore, the lighting strategy mostly avoids impacts to bats through the timing of the lighting use, and as such complies with the Guidance Note.

Mitigation

Lighting use will be outside of the main bat active period, but some bats may be active between the end of October and end of February depending on weather conditions. Additionally, as detailed in the External Lighting Assessment Report, the lighting can be manually switched on at any time if required ‘in response to any breach or emergency’. To mitigate any residual impacts to foraging or commuting bats if active when lighting is used, the specification of the proposed lighting (detailed in the Starguard and Acorn datasheets) will be use of LED lights which have a colour temperature of 2700 Kelvin and each type of lighting has zero upward light. This is in line with the Guidance Note which advises that LED luminaires should be used, with a warm white light source (2700 Kelvin or lower), and that only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered.

Compensation

Through the actions detailed in the avoidance and mitigation sections above, it is considered that the Lighting Strategy avoids and furthermore mitigates potential impacts to foraging and commuting bats. As such, compensation is not required.

Conclusion

The Lighting Strategy complies with the Guidance Note by firstly avoiding impacts to bats through the proposed timings, followed by mitigation through selection of appropriate luminaires that are in line with advice provided in the Guidance Note.

If you require any additional information do contact us.

Yours Sincerely

Katie Smith

Katie Smith

Senior Ecologist, For and on behalf of BSG Ecology

¹ <https://www.timeanddate.com/sun/@2654141> – last accessed 18 December 2025.

² Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, 4th Edition, Bat Conservation Trust, London