Victoria Bates, Guildford Borough Council

.cc Claire Upton-Brown, John Busher
.cc Cllrs Joanne Shaw, Yves de Contades, Joss Bigmore, George Potter, Richard Mills, Maddy Redpath, Geoff Davis

5th February 2025

Dear Victoria

23/D/00018/15 | Discharge of condition 18 (Sensitive lighting management plan) of planning permission 20/P/00825 allowed on appeal 21/10/2022. | Urn Field, Downside Road, Guildford

Thank you for the opportunity to comment on the Applicant's submissions to discharge the above condition. We hope the following information is useful in informing your decision.

The importance of Condition 18

The position of the floodlights on a high view line and adjacent to a popular and highly accessible part of the Surrey Hills National Landscape (previously AONB) means that this installation has arguably been the most controversial aspect of the development.

Public scrutiny is likely to increase significantly as the Urnfield floodlights come into use, as both residents and visitors to Merrow Downs (and beyond, including the land currently managed by Guildford Golf Club) become aware of the highly visible impact of the development. In discharging this condition it is therefore in the interests of both the LPA and the developer to remove any lack of clarity about what is to be expected and who is accountable.

The Inspector's decision

The Inspector acknowledged in her decision the harmful impact of these floodlights on the natural beauty and wildlife of this area of the Surrey Hills National Landscape (para 10):

> *The introduction of manmade structures, at a substantial height, which include light sources that would make them appear prominent would be harmful to the natural qualities and scenic beauty of the Merrow Downs area of the AONB.*

Her decision letter goes on to list a number of mitigations of this acknowledged harm, including the production of a Sensitive Lighting Management Plan. At para 24 of her decision the Inspector explains the condition requirements:

> *"With respect to bats a condition requiring a Sensitive Lighting Management Plan is recommended which would secure low levels of lighting close to woodland edges, amongst other things.* ***This should seek to achieve the light levels of 1 lux or below at the woodland edge and other foraging commuting corridors across the site*** *as requested by Surrey Wildlife Trust. Nevertheless, the light levels to the woodland are very low and, whilst there is a discrepancy between the type of luminaire recommended in the Bat Survey and that proposed in the External Lighting Report, the other recommendations can be followed. I am therefore satisfied that there would not be an unacceptable effect on bats as a result of these proposals." [our bold]*

This paragraph makes a direct link between the 1 lux maximum light spill and the impact on a protected species (i.e. impacts are acceptable **provided** the 1 lux is achieved).

The latest version of the LEMP, published in August 2024 on p6 reaffirms "high levels of bat activity associated with the woodland edge".

Both the Inspector, and the Applicant - in the Bat Survey Report and in the LEMP (all versions) - have made a commitment to incorporate the guidance published by the Institute of Lighting Professionals (ILP) and Bat Conservation Trust (BCT) in the sensitive lighting management plan.

The most recent relevant Guidance published by the ILP and BCT is Guidance Note 08/23 Bats and Artificial Lighting at Night and this has informed our submission below.

Our comments explain our serious concerns about the Applicant's submitted Sensitive Lighting Management Plan; we then set out some suggestions for improvement and clarification, using the ILP Guidance.

Incomplete, inconsistent and contradictory information presented about the lighting impacts

The only current information presenting the light spill and impact on the woodland edge is contained in the two contour maps published as part of the various versions of the LEMP (page 17 in latest version, Fig 4.3). These maps differ from the contour maps published in the Edward Pearce Lighting Report but there is no supporting data for them.

From a Freedom of Information request to GBC in 2024 it is clear that Surrey Wildlife Trust raised a number of queries in relation to the information about lighting impacts provided in the LEMP.

An email from Surrey Wildlife Trust sent on August 17th 2023 to Tormead School asked several questions, including:

> *"The LEMP includes two figures which show LUX levels but due to the resolution I cannot read the numbers, or see that there is approximately 1 lux onto the woodland edge. However, I note the submission of the standalone figure. Could it also be confirmed whether this is light (i.e. 1 lux) at ground level or tree canopy level, or both?. Is 1 lux also the maximum lux level predicted or an average?"*

Tormead's response to that query was:

"The lighting levels are those at the point of the luminaire (top of floodlight and therefore approximately top of canopy) with the average lux figure given the constant output." [our underline]

An email from Greengage Consultants on 23rd August 2023 however gives contradictory information about the information presented in the contour map:

"The floodlight plan showing the lux contours that is easier to read. To confirm the contours show the Lux levels - the assessment has used the floodlight to map with these shown at ground level." [our underline]

It remains unclear therefore whether the contour map contained at Fig 4.3 of the LEMP represents light spill at ground level or canopy level, or somewhere in between. Vertical plane light spill calculations would address this inconsistency and indeed these are recommended by the ILP Guidance Note 08/23.

The maximum light spill of 1 lux required by the Inspector applies to the whole of the woodland edge (top to bottom) which, unlike the hockey pitch surface, is a vertical feature.

It should also be noted that the lux contours in the current version of the LEMP detail average lux levels, and not the maximum levels. The maximum lux level for an average of 1 lux is likely to be up to four or five times greater.

Inadequate content of the plan submitted

The "Sensitive Lighting Management Plan" submitted by the Applicant and published on 27th January 2025 addresses only the most straightforward elements of what might reasonably be expected in line with the commitment by the Applicant, and reinforced by the Inspector, to follow Institute of Lighting Professionals and Bat Conservation Trust Guidance.

- Management Plan Actions 1, 2 and 3 articulate the limitations on floodlighting timing as set out by the Inspector in her decision.
- Actions 4 – 8 describe various training and maintenance activities.
- Action 9 gives a cursory consideration to compliance and review, but this is wholly inadequate for the sensitivity of this site.

The inspector's decision specified a 1 lux maximum and not ILP Zone E2

The Applicant needs to produce a plan to meet the Inspector's clear direction of "1 lux or below at the woodland edge" and not within the limits of ILP zone E2 (which would allow more light pollution than this).

The ILP zone to be applied in this development was a matter of contention at the Appeal hearing. The Inspector chose not to make a conclusion on this matter in her decision and instead specified the 1 lux maximum for clarity, in support of the recommendations by Surrey Wildlife Trust.

Inspector's decision para 9

> *"I am not provided with evidence as to whether the lighting would meet the standards for natural surroundings recommended for AONBs as set out in the ILP1 Guidance Notes for the reduction of obtrusive light."*

The Applicant could be accused of "shifting the goal posts" by suggesting they need only commit to meeting the requirements of Zone E2 on this site and by ignoring the requirement for a maximum 1 lux light spill, designed to mitigate impacts on a protected species.

Tormead's repeated commitment to a 1 lux maximum light spill on the woodland edge

Tormead's team advised the Inspector at the Appeal hearing in 2022 that the recommendation from Surrey Wildlife Trust of a maximum 1 lux spill at the woodland edge was achievable within their plans. This verbal commitment has been repeated in subsequent published application material.

In the school's letter published on the GBC planning portal and dated 25th April 2023, in response to queries from Surrey Wildlife Trust about the LEMP, the Tormead representative states:

> *"For example, the updated and revised lighting plan clearly demonstrates that the proposed solution (now that we have run a formal tender process with six reputable sports facility contractors) will not result in any light spill above 1 lux on the woodland to the north of the site or any other "public space".*

This statement, in support of the discharge of condition 4 (LEMP), appears to guarantee that no area around the site, including the adjoining woodland, will see levels of light spill above 1 lux.

This claim, and the commitment to a 1 lux maximum is further clarified in the letter:

> *"Appendix C of the Greengage Letter dated 25 April 2023 shows a map which demonstrates that the proposed floodlighting solution* ***will not result in a light spill of more than one lux in any part of the woodland area or indeed any land outside the boundary of the playing field site.*** *This can be seen from the most outlying of the six lux "contour lines" which are marked in purple and which show the lux levels (moving out from the pitch) of 50, 25, 15, 10, 5 and 1. (It should be noted that floodlight technology and efficiency is constantly evolving and this map is an enhancement on maps provided during the initial planning application in terms of a definitive demonstration that there* ***will be no light spill of 1 lux on (sic) more on the adjoining woodland****)." [our bold]*

Given Tormead's repeated commitment to meeting the Inspector's requirement of a maximum light spill on to the woodland edge of 1 lux, this cannot be an issue of contention, or of negotiation.

Any reference to meeting ILP Zone E2 requirements therefore is irrelevant and misleading. It should be removed from the Sensitive Lighting Management Plan and replaced by reference to the 1 lux maximum specified by the Inspector.

Unassessed impact of additional car park lighting

In the email trail referenced above (17th August 2023) SWT also asked for the inclusion of all lighting onsite to be included in the developer's assessments:

"Please could you confirm that all lighting as part of the scheme has been assessed and discussed within the LEMP – i.e. there is only floodlighting. If there is any other lighting, could this be detailed, with ecological justification and if required, mitigation."

Tormead dismissed the need for any further assessment of lighting impacts (note, the path lighting has not been included either in this response or the LEMP):

"All of the lighting mitigation relates to all lighting on site. To confirm the low level security bollard lighting will be directed downwards with louvres / hoods so that there is no light spill and illuminates the ground only. No impacts on ecology will occur and no mitigation is considered necessary"

The bollard lights surrounding the car park (and along the new paths) were added to the scheme after the Appeal decision and will contribute to the cumulative light spill on to the woodland. These concerns related to the National Landscape should not have been so readily dismissed by the Applicant, particularly given the ILP's warning (quoted below) that cowls and louvres often have far less impact on light spill than anticipated.

The impacts of all lighting, including the glare and reflectivity off the car park / path surface, should be included in the data supporting a sensitive lighting management plan (e.g. as part of the contour diagrams and vertical plane calculations) and in all compliance, monitoring and review processes. The car park lights also need to be on same timer switches as the floodlights.

Suggested improvements to the Sensitive Lighting Management Plan, using ILP and BCT Guidance 08/23

1. **Produce a definitive and accurate contour map in line with ILP/BCT Guidance, to replace the current inconsistent information contained within the (still unapproved) LEMP**

Ensure that this map includes an assessment of ALL lighting on site, including the bollards around the car park and along the path edge. The expectations of an accurate contour plan are set out in the ILP Guidance Note 08/23 and extracted in point 3 below. They include the need to include vertical as well as horizontal calculations, smaller contour intervals and data tables with maximum and minimum values, not merely an average lux value.

2. **Ensure the plan makes a clear commitment to meeting the Inspector's decision – that the development would proceed on the basis of a maximum 1 lux light spill at the woodland edge in order to protect wildlife**

The Applicant should not be attempting to introduce a new (more lenient) standard of allowable light pollution by the back door in this plan. The Inspector's decision states clearly a 1 lux maximum at the woodland edge and a public commitment to meeting this requirement has been made by Tormead on repeated occasions through the conditions discharge application material.

3. **Provide robust information to enable the LPA to assess compliance**

The Guidance note published by the ILP and BCT in August 2023 is current best practice. On p30 it warns that:

> *…due to the lensing and fine cut-off control of the beam inherent in modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely."*

Given this unpredictability of effect and the fact that the floodlights are in a sensitive and highly visible location in a protected landscape, it is critical that the Applicant has a robust process for ensuring compliance against the Inspector's requirement of max 1 lux at the woodland edge.

The ILP Guidance on p36 suggests that developers should demonstrate compliance with required lux levels, and on pp37-38 the Guidance sets out the information which should be provided on contour plans for the LPA to assess compliance. This information is missing from the Sensitive Lighting Management Plan submitted and includes:

- A calculation showing output of luminaires to be expected at 'Day 1' of operation
- Each luminaire should be at the maximum output anticipated to be used in normal operation on site
- In addition to the horizontal calculation plane representing levels of illuminance at ground level, vertical calculation planes should be used to show the illumination directly upon the vertical face of the woodland edge. Vertical planes will enable a visualisation of the effects of illumination at the various heights at which different bat species fly.
- Contour levels from 0.2 to 10 lux should be shown
- Each illuminance/lux contour plan should be accompanied by a table showing their minimum and maximum illuminance/lux values (the LEMP Fig 4.3 presents only average lux values. An average lux value of 1 will likely represent a maximum of between 4 and 5 lux)

4. Put in place post-construction/operational phase compliance-checking

The final stage of the process outlined in the ILP / BCT Guidance is a check of compliance, post-construction, and regular monitoring thereafter (particularly where lighting is provided on automatic systems – see ILP 08/23 p40).

Given the highly visible nature of this floodlighting to a wide public (resident and visitor) it is likely to be in the interests of both the developer and the LPA to make publicly available an assessment by the LPA of compliance with the 1 lux maximum set by the Inspector.

The ILP Guidance suggests "ongoing monitoring schedules" to ensure compliance. This should be more frequently than the bi-annual checks proposed by the Applicant. More regular ongoing monitoring would serve to meet the Applicant's stated desire (Sensitive Lighting Management Plan action 9) to "ensure the floodlights do not ever become a nuisance".

In order to retain community confidence in the compliance monitoring programme, the developer would be wise to publish (e.g. on the school website) regular ongoing lux measurements (horizontal and vertical plane, max and min) of light pollution at the woodland edge.

We hope this information, and these suggestions, are helpful to you in determining condition 18 and in fulfilling the LPA's duty to seek to further the statutory purpose of the Surrey Hills National Landscape designation.

Please feel free to contact us if anything we have presented is unclear or if you require further information.

Kind regards

Katherine Atkinson
For MDRG