



Dorset
Council

**IN THE MATTER OF AN APPEAL UNDER SECTION 78 TOWN AND COUNTRY
PLANNING ACT**

APPEAL REF: APP/D1265/W/24/3348224

LOCAL PLANNING AUTHORITY REF: P/FUL/2022/06840

KNOLL HOUSE HOTEL, FERRY ROAD, STUDLAND, SWANAGE, BH19 3AH

**PROOF OF EVIDENCE OF SAM WILLIAMS,
LEAD SENIOR ECOLOGIST**

MADE ON BEHALF OF DORSET COUNCIL

NOVEMBER 2024

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1.0 Personal Background

- 1.1 My name is Sam Williams, and I am instructed by Dorset Council to provide evidence on biodiversity matters to the inquiry. I hold a First-Class Honours degree in Zoology from Aberystwyth University (2017). I practised as a seasonal and then assistant ecologist between 2018 and 2020 for a consultancy based in Dorset. In December 2020 I was appointed as an Environmental Assessment Officer at Dorset Council and in March 2022 I was appointed as a Senior Ecologist within the Natural Environment Team at Dorset Council, and then Lead Senior Ecologist in February 2023.
- 1.2 I have prepared this Proof of Evidence for the public inquiry in respect of this appeal which is to be held on 11th December 2024. My evidence is relevant to the effect of the development on biodiversity.
- 1.3 My evidence is based on my own personal experience of the Site, which I first became involved with on 26/09/2023 following a consultation to Natural Environment Team from the planning case officer. My evidence is also based on consulting the Council's planning files. Where I have relied on a source of information other than my own personal experience, I state that source and where appropriate or necessary, provide a copy of that source in an Appendix to this Proof.
- 1.4 The evidence which I have prepared and provide for this appeal in this proof of evidence is true, is within my scope of expertise and experience and has been prepared and is given in accordance with the guidance of my professional institution. I confirm that the opinions expressed are my true and professional opinions.

2.0 The Appeal Site and its Surroundings

- 2.1 The appeal site is approximately 500m north of the village of Studland, within the Isle of Purbeck.
- 2.2 The appeal site is a roughly rectangular parcel of land of approximately 1.92 hectares. The site itself is largely developed, comprising the existing Knoll House Hotel and associated facilities.
- 2.3 The setting of the site is rural, being enclosed to the north and west by mixed woodland with a large expanse of lowland heathland beyond this. To the south, and east, on the other side of Ferry Road, is a mosaic of semi-natural habitats comprising grassland, woodland, hedgerows and scattered trees. Further to the east is Knoll Beach, with associated car park and visitor facilities including a café and toilet block, with Studland Bay beyond.
- 2.5 Nearby non-statutory designations include Godlingston-Studland Fields Site of Nature Conservation Interest (SNCI), located approximately 280m southwest of the appeal site. This SNCI is designated for its acid grassland and scrub habitats.
- 2.6 Information submitted in support of the original planning application (P/FUL/2022/06840) establishes that the Appeal Site supports numerous Important Ecological Features (IEFs) including roosting bats, foraging and commuting bats, nesting birds, common reptiles, Lowland Dry Acid Grassland Priority Habitat and a large number of trees.

3.0 Reason for Refusal 4 - biodiversity

- 3.1 I first provided comments on the application on 28th December 2023 (**CD3.031**), following submission of additional and revised supporting information by the appellant. I undertook a review of Chapter 7 of the Environmental Statement (ES) (**CD1.059**) and ES Technical Appendix 7.1 to Chapter 7: Biodiversity (**CD1.059**), both dated November 2022, an Ecology Solutions letter response to Natural England dated July 2023 (**CD2.017**) and any relevant design plans, I came to the view that there were numerous issues in relation to biodiversity impacts. These pertain firstly to the assessment of the ecological baseline of the site, in that there was no assessment of the likely presence of Nightjar and that the habitat survey was inaccurate, because it was contradicted by a previous survey at the site. In the case of Nightjar, I advised that the effect of the development was unknown, because of the absence of this species from the baseline. I also considered that impacts on known ecological features were not adequately addressed, namely impacts to Lowland Dry Acid Grassland Priority Habitat during the construction phase and impacts to foraging and commuting bats from light spill during the operation of the proposal.
- 3.2 I would note that my position, as described above, aligned with the position taken by Natural England in their consultation responses submitted during the time that the planning application was live. In their consultation response date 9th May 2023 (**CD3.018**), they also raised concerns in relation to bats and Nightjar. They considered the surveys for bats to be deficient, in that there had been no survey of the woodland, which might be subject to additional light spill. In respect of bat and Nightjar they advised that the applicant should be required to produce a lighting strategy to “*address lighting of a suitable level and quality to meet the Bat Conservation Standards... for both bats and foraging Nightjar.*” This was reiterated in a further Natural England response dated 22nd December 2023 (**CD3.030**) requiring a lighting strategy to ensure impacts from light spill, specifically light spill on “*the interface between development and the woodland area to the west and north*”, will be avoided.
- 3.3 Therefore, there is clearly a need to mitigate lighting effects on bats and Nightjar utilising the boundary habitats within the Appeal Site, as well as adjoining habitat, for foraging and/or commuting. This is supported by the National Planning Policy Framework (NPPF) in paragraphs 180d and 186a. Para 180d requires that “*decisions should contribute to and enhance the natural and local environment by... minimising impacts on and providing net gains for biodiversity*”. Para 186a requires that local planning authorities should apply the principle that “*if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused*”.
- 3.4 The principle of avoiding and mitigating impacts on ecological features, in this case bats and Nightjar, is also supported by Adopted Purbeck Local Plan (2018-2034) Policy E10: Biodiversity and geodiversity (**CD4.012**).
- 3.5 In order to address the impact to bats and Nightjar from lighting I advised that I concurred with Natural England that a lighting strategy was required to demonstrate that impacts from light spill onto nearby habitats are adequately avoided or mitigated. At this time, I considered Chapter 7 of the ES to contain insufficient information with regards to impacts on foraging and commuting bats, and mitigation of this impact, because it referred to 'Dark Corridors' without describing the spatial extent of these, or

specific details around, for example, acceptable light levels within the 'Dark Corridors'. As such additional detail was also required here, to support the lighting strategy.

- 3.6 The proposal for 'Dark Corridors' was established by Chapter 7 of the Environmental Statement (ES). Under the section considering potential impacts on bats during the operational phase of the Proposed Development, Paragraph 7.181 states:

“During the operational phase, although there is likely to be an increase in lighting within the Application Site, ‘dark’ corridors will be maintained using a sympathetic lighting regime, e.g. involving the use of directional, low-powered, warm white spectrum LED lighting to minimise light spillage. ‘Dark’ corridors will be maintained along existing and new hedgerows to maintain suitable navigational and foraging opportunities for bats.”

- 3.7 Key guidance regarding lighting effects on bats and lighting requirements to mitigate impacts on bats is set out in the note produced by the Institute of Lighting Professionals and the Bat Conservation Trust 'GN08/23 Bats and Artificial Lighting At Night' (2023). An acceptable lighting regime should adhere to the standards set out in GN08/23, or any more relevant superseding guidance. It is generally considered that, if these standards can be achieved for bats, lighting impacts on Nightjar will also have been adequately avoided or mitigated.
- 3.8 Of the bat species recorded during the baseline surveys reported in Chapter 7 of the ES, the guidance identifies that Long-eared bats, Myotis species and Greater Horseshoe would avoid artificial lighting, and that Pipistrelle spp., Noctule, Serotine and Leisler's would have their patterns of activity disrupted by being drawn to artificial lighting.
- 3.9 In accordance with the ILP/BCT definition for 'complete darkness', an acceptable lighting regime should achieve no more than 0.2 lux above baseline levels on the horizontal plane within the proposed 'Dark Corridors', with maximum levels post-development not exceeding 0.5 lux (representing 'very low levels of light').
- 3.10 Because the submission did not contain any of the information described above, nor any demonstration that a lighting strategy was achievable in practice, my view was that the application did not demonstrate that there would be no impact on Nightjar, or the assemblage of bats likely to be using the Site. At this time, I was also of the view that insufficient information was provided for a number of mitigation and enhancements that were located off-site, within the 'wider study area', which meant there was uncertainty as to how these measures would be secured and managed in the long-term. I provided these comments to the case officer, by email, on 28th December 2023.
- 3.11 On 5th January 2024 Ecology Solutions Limited, submitted a Biodiversity Plan (BP) form (**CD2.030**) and a plan showing on-site and off-site ecological enhancements, referred to as Figure 7.5 – Ecological Enhancements (**CD2.031**).
- 3.12 Separate to submission of the BP and Figure 7.5, NET received submission of a Biodiversity Metric, titled 9405.BNG.Metric.v2 (**CD2.033**).
- 3.13 Following review of the above documents I came to the view that there remained a number of issues in relation to biodiversity impacts. In an email to Ecology Solutions dated 5th January 2024 (**CD3.042**) I advised the following:

- That I had concerns regarding the reliance on tree planting to achieve a 32% gain, as demonstrated by the Biodiversity Metric, because of the concerns raised by the Tree Office regarding the damage and premature decline of these trees.
- That the BP was not adequately detailed, nor give sufficient certainty, for me to consider that the measures described could be secured. In part this was because a number of mitigation measures had not been carried over from the Environmental Statement (ES) and that the mitigation in the ES was itself vague or lacking in detail.
- That much of the off-site mitigation/enhancements are not secured in a way that would allow them to be relied upon.

3.14 In addition to the above I reiterated the points raised previously, in my consultation response to the case officer, in relation to insufficient information about lighting impacts on bats, uncertainty around off-site mitigation and enhancements, and that there was potential harm to the Lowland Dry Acid Grassland Priority Habitat.

3.15 In response to the above Ecology Solutions made amendments to the BP and addressed some of the concerns by providing additional information in writing.

3.16 Enhancement measures related to the Habitats Regulations Assessment (HRA), such as mire and heathland restoration, circular walk and dog walking area, were removed from the BP, as they were not required in this document.

3.17 With regard to the area of Lowland Dry Acid Grassland Priority Habitat, in the south of the site, Ecology Solutions described that a majority of the habitat would not be impacted, and small areas that are likely to be affected would be subject to temporary impacts that are reversible. The protection and reinstatement of this habitat would be set out within a CEMP/LEMP to be secured via a planning condition. I considered this approach to be sufficient to address the concern.

4.0 Outstanding concerns

4.1 In addition to the amendments described above Figure 7.5 of the ES Technical Appendix 7.1 was updated to show, for the first time, 'Dark Corridors' which would apply to both on-site and off-site habitats. This figure was included as an appendix to the revised BP (**CD2.032**). In addition, Ecology Solutions advised that their client, the appellant, would be happy to agree to the provision of a lighting strategy via a planning condition.

4.2 I considered these 'Dark Corridors' to be acceptable in principle. That is to say that the way in which they were mapped spatially was acceptable because they applied to all retained habitats that would be of value for foraging and commuting bats and Nightjar, including the woodland to the north and south, and trees between the existing hotel and Ferry Road. However, my view remained that there was significant doubt as to whether the mitigation could be achieved in practice because there was insufficient information contained elsewhere in the BP, and in other supporting documents, as already established within this Proof of Evidence. As such, on 15th January 2024 I requested that Ecology Solutions "*set out the principles and parameters for how impacts on the dark corridors will be mitigated through this strategy*". The BP was not amended accordingly, nor were any details of proposed lighting submitted, before the application was determined.

4.3 The Appellant has sought to address this matter ahead of the Appeal by commissioning a Light Spill Mitigation Report (**CD9.6**). The Light Spill Mitigation Report presents, in

Figure 7 on page 10, lux plots showing the extent of light spill generated by the proposed development, from both internal and external lighting. However, this figure omits lux plots showing light spill from the crescent-shaped three-storey villa building located in the west of the Appeal Site, as shown circled in Figure 1 below. The western elevation of this building faces onto woodland which comprises the western boundary of the site and which will almost certainly be of value to the assemblage of bats and likely to be using the Appeal Site. Proposed elevations of the three-storey villa building (**CD1.024**) show that each of the 20 villas which comprise this block will have windows and/or doors on each storey of the western elevation. As such, it is reasonable to expect significant light spill from this elevation.



Figure 7 - False colour lux plot, site plan view.

Figure 1 – Figure 7 of the Light Spill Mitigation Report with area omitted circled in red.

- 4.4 Since light spill from the western elevation of the villas is not plotted, I do not consider the Light Spill Mitigation Report sufficient to demonstrate that there will be no effects on Nightjar, nor the assemblage of bats likely to be using the Appeal Site.
- 4.5 Where Figure 7 of the Light Spill Mitigation Report does present lux plots it demonstrates light spill from the northern elevation of the four-storey apartment building, located in the north of the site, which extends into the 'Dark Corridors' identified in the Biodiversity Plan prepared by Ecology Solutions. That is 'Dark Corridors' which I previously considered to be acceptable in terms of the habitats that they applied. The location of the light spill is shown circled in Figure 2 below, and the 'Dark Corridors' as presented in the Ecology Solution BP are shown in Figure 3. Light levels in the circled location are greater than 0.5lux, extending up to 3/4lux (presented in Figure 7 of the Light Spill Mitigation Report

as yellow and orange), and therefore greater than the acceptable levels established in paragraph 3.7 of this Proof of Evidence. As such, I consider light spill onto this area of woodland to be unacceptable.

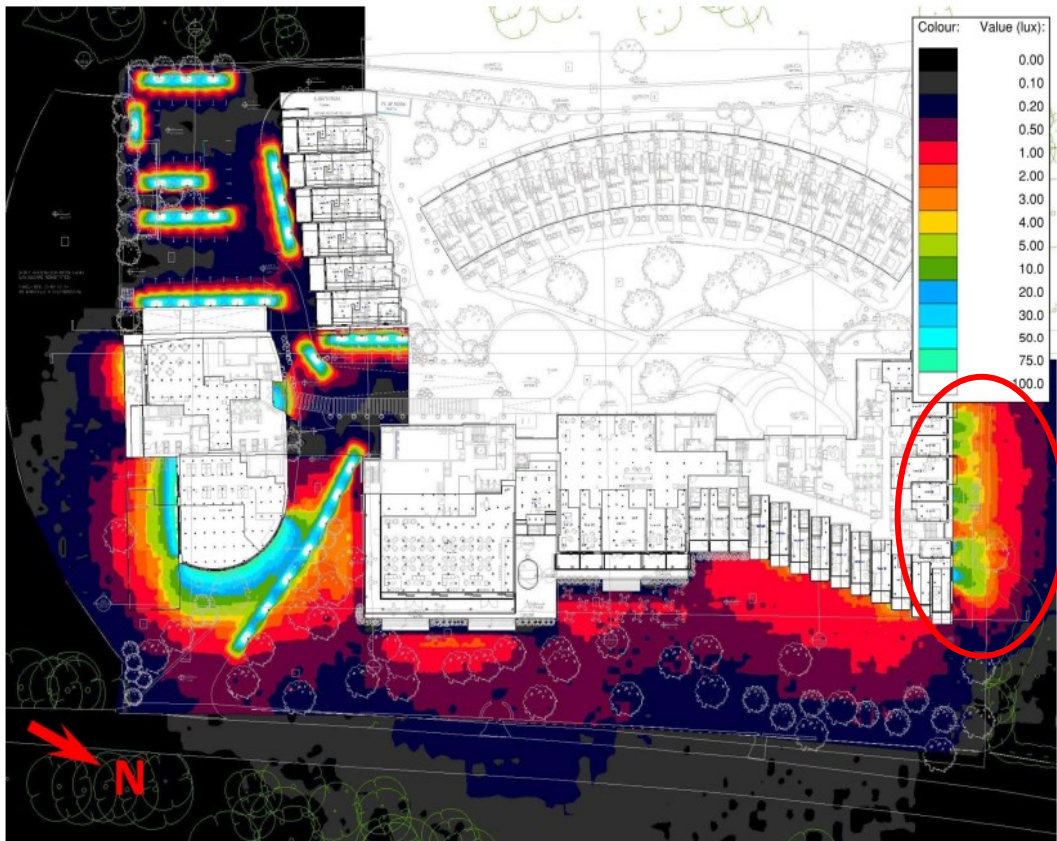


Figure 2 – Figure 7 of the Light Spill Mitigation Report with area of light spill >0.5 lux circled in red.



- 4.6 Alongside the Light Spill Mitigation Report I was presented with an amended Biodiversity Plan (**CD9.007**) drawn up by Ecological Planning & Research Ltd (EPR). The primary change to this when compared to the Biodiversity Plan submitted during the course of the planning application is the appended 'Biodiversity Plan' drawing on the final page, within which the 'Dark Corridors' have been modified.
- 4.7 Due to the absence of information about light spill on the western boundary, and the Appellant's own evidence indicating that there will be an unacceptable impact from light spill on the northern boundary, I advised the Appellant's ecologist, on 15th November 2024, that I not choice but to maintain the Reason for Refusal pertaining to the Biodiversity Plan, because it does has not been demonstrated that there will be no effects on the assemblage of bats using the Appeal Site.
- 4.8 At 11.20 am on the date of exchanging evidence (18th November 2024), having raised these concerns with the Appellant's Ecologist, I received an amended Biodiversity Plan (**CD9.008**) showing an amended boundary to the 'Dark Corridor' measuring 10m from the western elevation of the villa block, which was inferred from the distance of the light spill onto the northern boundary, from the apartment building. However:
- I have not received an updated Light Spill Mitigation Report and so I am not in a position to confirm whether or not the light spill on the western boundary would be equivalent.
 - The Appellant's ecologist has stated that "The purpose of the lighting assessment was to inform the starting point for any lighting strategy, but the detailed lighting strategy is to be secured by planning condition." The Appellant has also now referred for the first time to dark neutral UV film, but their modelling has not been carried out showing what effect that would have. Therefore, I do not know whether or not the 10m contour suggested by the Appellant is achievable or not.
- 4.9 As I have said above, in my view whether or not additional measures, described in a future 'detailed lighting strategy' (and it is not clear to me what that strategy is and to what extent it is the recommendations at Section 4 of the Light Spill Mitigation Report), could sufficiently reduce residual light spill to acceptable levels is at this stage essentially remains a matter of speculation. There is no evidence that has been provided to indicate that any lighting strategy would be effective in achieving acceptable light levels on important habitats. Therefore, I am not satisfied, on the basis of the current evidence available, that this is a matter that could be left to a condition as I do not think it can be concluded that it is likely that a detailed light strategy could in principle reduce or mitigate lighting levels to an acceptable degree.

5.0 Conclusion

- 5.1 In reviewing the ecological information submitted in support of the planning application to which this Appeal relates, I raised concerns with a number of different aspects of the proposal due to the potential for there to be harm to protected species and Priority Habitats, because of incorrect or insufficient information. During the time that the planning application was live a majority of these concerns were resolved. Ultimately though the issue of unmitigated harm to Nightjar and commuting and foraging bats, occurring as a result of light spill from the proposed development, remains unresolved.
- 5.2 The proposal is therefore contrary paragraphs 180 and 186 of the NPPF and Adopted Purbeck Local Plan (2018-2034) Policy E10: Biodiversity and geodiversity.

6.0 Reason for Refusal 3 – drainage

- 6.1 In seeking to address the reason for refusal relating to drainage the Appellant has submitted a revised Flood Risk Assessment & Drainage Strategy (**CD2.26**) and Drainage Strategy plan (**CD2.25**).
- 6.2 Of relevance to ecology is that the revised Drainage Strategy proposes that *“all surface water runoff from the site will be discharged to the existing surface water ditch adjacent to the south of the site”* and that a *“new small headwall will be constructed within the ditch, either concrete or built from vegetated walls.”*
- 6.3 I raised concerns on 16th October 2024 regarding the construction of a headwall within the ditch because the use of the ditch and adjacent habitats by protected species, and the likely impacts on these ecological receptors, is unknown because these habitats were not subject to ecological surveys undertaken to support the planning application, and the drainage strategy lacks detail about the methods for construction of the headwall, and the maintenance plan for this structure.
- 6.4 A site inspection of the location for the proposed headwall was undertaken by EPR on Monday 11th November 2024. Following this survey EPR concluded that *“there is no risk of harm or disturbance to Water Vole or Otter arising as a result of the proposed headwall installation, nor to Water Vole/Otter habitat”* and that *“the tightly mown amenity grass verge adjacent to the northern limit of the ditch also presents no protected species constraints to the installation of the headwall.”*
- 6.5 As such am I satisfied that the Drainage Strategy is not subject to significant ecological constraints requiring further information or mitigation.