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10993: LAND OFF FREESTONE GROVE, WESTBURY

ECOLOGICAL TECHNICAL NOTE

1. Introduction

1.1. Ecology Solutions was initially commissioned in October 2022 by Robert Hitchins Ltd to undertake an Ecological Assessment of land off Freestone Grove, Westbury (hereafter referred to as 'the site').

1.2. After the submission of the planning application (ref. PL/2023/05157), the Wiltshire Council Ecologist consultation response (dated 16/08/2023) requested additional information regarding bats within the site (the submission reporting on surveys from October 2022 and April 2023). As such, an Ecological Update document was produced, which set out the results of Ecology Solutions further specific surveys with regards to bats.

1.3. In addition to the request for bat activity surveys, the consultation response from the Council requested an 'Ecological Parameters Plan' (EPP). The consultation response stated that the EPP must include identification (with measurements) of 10 m of core bat habitat restricted to 0.5 lux levels along the entire eastern boundary.

1.4. The EPP (based on a revised layout) has already been submitted to the Council and is also appended to this Technical Note.

1.5. The purpose of this Technical Note is to present the results of additional static automated bat activity surveys carried out during the periods 26th June to 12th July, 12th August to 19th August, and 6th September to 11th September 2024, and outline how the EPP will ensure no significant impacts to bats would occur as a result of the proposed development.

Experience

1.6. I joined Ecology Solutions as a Director on 8th April 2024. I previously worked as Director of Ecology at ACD Environmental Ltd, a multi-disciplinary consultancy. I was employed at ACD Environmental for 13 years. I have 18 years' experience in ecological consultancy. I hold Natural England class licences for bats (all species), hazel dormice *Muscardinus avellanarius*, great crested newt *Triturus cristatus*, and barn owl *Tyto alba*. I am a Registered Consultant on the Badger *Meles meles* Class Licence and the Bat Mitigation Class Licence.

1.7. I am qualified to act under the Otter *Lutra lutra* Class licence. I have designed mitigation projects and acted as Named Ecologist for high conservation value bat roosts. I have co-authored a research article published by Cambridge University Press and Oryx (International Journal of Nature Conservation). I have written an article for CIEEM's In Practice publication. I have acted as an Expert Witness at Public Inquiry and have attended planning appeal hearings. I am a Full Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM).

Additional bat static detector survey results

1.8. Static detector surveys were carried out during the periods 26th June to 12th July, 12th August to 19th August, and 6th September to 11th September 2024.

1.9. A total of 4 detectors were installed on the site boundaries during each survey.

1.10. Due to technical faults, no data is available for Location 2 for the September survey and Location 4 for the August survey. This is not considered to be a significant limitation, due to the significant total amount of survey data available. Furthermore, the proposed layout has been re-designed, which has been amended to avoid any significant effects on bats.

1.11. Locations of static detectors are provided in **Appendix 1**. For ease of reference, **Location 1** was the northern boundary, **Location 2** was the eastern boundary, **Location 3** was the southern boundary, and **Location 4** was the western boundary.

1.12. Results of the updated bat static detector activity surveys are provided below.

Location 1 (northern boundary)

1.13. During the survey period of 26th June to 12th July 2024, the following species and accompanying numbers of registrations were recorded at Location 1:

- Serotine – 56
- Myotis spp. – 12
- Leisler's – 43
- Noctule – 35

- Nathusius' pipistrelle – 3
- Common pipistrelle – 3294
- Soprano pipistrelle – 175
- Brown long-eared – 4
- Greater horseshoe – 8

1.14. During the survey period of 12th August to 19th August 2024, the following species and accompanying numbers of registrations were recorded at Location 1:

- Barbastelle - 1
- Serotine – 12
- Myotis spp. – 9
- Leisler's – 1
- Common pipistrelle – 273
- Soprano pipistrelle – 172
- Brown long-eared – 9
- Lesser horseshoe – 2

1.15. During the survey period of 6th to 11th September 2024, the following species and accompanying numbers of registrations were recorded at Location 1:

- Barbastelle - 66
- Serotine – 9
- Myotis spp. – 17
- Leisler's – 2
- Noctule – 1
- Nathusius' pipistrelle - 2
- Common pipistrelle – 117
- Soprano pipistrelle – 34
- Brown long-eared – 6

Location 2 (eastern boundary)

1.16. During the survey period of 26th June to 12th July 2024, the following species and accompanying numbers of registrations were recorded at Location 2:

- Serotine – 251
- Myotis spp. – 25
- Leisler's – 29
- Noctule – 34
- Nathusius' pipistrelle – 3
- Common pipistrelle – 2815
- Soprano pipistrelle – 64
- Brown long-eared – 14
- Greater horseshoe – 8

1.17. During the survey period of 12th August to 19th August 2024, the following species and accompanying numbers of registrations were recorded at Location 2:

- Barbastelle - 29
- Serotine – 10
- Myotis spp. – 1
- Leisler's – 10
- Noctule – 22
- Common pipistrelle – 331
- Soprano pipistrelle – 11
- Brown long-eared – 11
- Lesser horseshoe – 5

Location 3 (southern boundary)

1.18. During the survey period of 26th June to 12th July 2024, the following species and accompanying numbers of registrations were recorded at Location 3:

- Serotine – 190
- Myotis spp. – 3
- Leisler's – 17
- Noctule – 69
- Nathusius' pipistrelle – 9
- Common pipistrelle – 579
- Soprano pipistrelle – 11
- Brown long-eared – 1
- Greater horseshoe – 27

1.19. During the survey period of 12th August to 19th August 2024, the following species and accompanying numbers of registrations were recorded at Location 3:

- Serotine – 23
- Myotis spp. – 41
- Common pipistrelle – 877
- Soprano pipistrelle – 7
- Brown long-eared – 3
- Greater horseshoe – 3
- Lesser horseshoe - 3

1.20. During the survey period of 6th to 11th September 2024, the following species and accompanying numbers of registrations were recorded at Location 3:

- Barbastelle - 2
- Serotine – 2
- Myotis spp. – 6
- Leisler's - 2

- Common pipistrelle – 161
- Soprano pipistrelle – 2

Location 4 (western boundary)

1.21. During the survey period of 26th June to 12th July 2024, the following species and accompanying numbers of registrations were recorded at Location 4:

- Barbastelle - 2
- Serotine – 1527
- Myotis spp. – 42
- Leisler's – 94
- Noctule – 49
- Nathusius' pipistrelle – 9
- Common pipistrelle – 1394
- Soprano pipistrelle – 37
- Brown long-eared – 12
- Greater horseshoe – 61

1.22. During the survey period of 6th to 11th September 2024, the following species and accompanying numbers of registrations were recorded at Location 4:

- Barbastelle - 55
- Serotine – 8
- Myotis spp. – 14
- Leisler's - 1
- Common pipistrelle – 58
- Soprano pipistrelle – 10
- Brown long-eared – 1
- Greater horseshoe - 1

Interpretation of additional survey results

1.23. The additional surveys recorded low numbers of registrations from greater horseshoe from Location 1 (northern boundary) and Location 2 (eastern boundary) during the June/July survey period only (8 registrations respectively).

1.24. Greater horseshoe registrations were also recorded from Location 3 (southern boundary) and location 4 during the June/July survey period (27 registrations and 66 registrations respectively. A single greater horseshoe registration was also recorded at Location 4 during the September survey period.

1.25. Lesser horseshoe was recorded at Location 1 (northern boundary) and Location 2 (eastern boundary) during the August survey period (2 registrations and 8 registrations respectively).

1.26. Lesser horseshoe was also recorded at Location 3 (southern boundary) during the August survey period (3 registrations).

1.27. Barbastelle bat was recorded at Location 1 (northern boundary) during the August and September survey periods (1 registration and 66 registrations respectively), at Location 2 (eastern boundary) during the August survey period (29 registrations), at Location 3 (southern boundary) during the September survey period (2 registrations), and Location 4 (western boundary) during the June/July survey period (2 registrations), and the September survey period (55 registrations).

1.28. Common pipistrelle accounted for the largest number of registrations.

1.29. In the June/July survey period, Location 2 (eastern boundary) and Location 3 (southern boundary) recorded 251 and 190 (respectively) serotine registrations.

1.30. In summary, the additional bat surveys are largely in line with the findings of the previous surveys, in that the highest number of greater horseshoe registrations were recorded in the summer months, with lower numbers of calls recorded during the Autumn.

1.31. Higher numbers of barbastelle calls were recorded than the previous surveys, in August and September.

Ecological Parameters Plan

1.32. The previous consultation response from the Council requested an 'Ecological Parameters Plan' (EPP). The consultation response stated that the EPP must include identification (with measurements) of 10 m of core bat habitat restricted to 0.5 lux levels along the entire eastern boundary.

1.33. In light of the above, the layout of the proposed scheme has been re-designed. The EPP, which is based on the revised layout and has been submitted to the Council, shows that the scheme now includes a significant landscaped buffer along the eastern boundary, which now achieves a minimum of 10 metres at its narrowest point (in the north), and up to 19 metres at its widest point (in the south).

1.34. The eastern landscape buffer will function as a primary dark corridor for foraging and commuting bats, with lux levels at 0.2lux on the horizontal plane and 0.4lux on the vertical plane.

1.35. The creation of a primary dark corridor/landscape buffer for bats, is in line with previous consultation with Natural England, who confirmed a primary dark corridor was preferable.

1.36. In addition to the above, lighting will be minimised in so far as possible on the western and southern boundaries subject to light spillage.

1.37. The site access roads will be created along the northern and western boundaries. As shown on the EPP, the northern and western boundaries will incorporate bat crossings. As previously stated, at the junction of the new access roads into the site and the existing hedgerows (H3 and H4), a crossing point could be designed to facilitate bats to safely navigate the road. The design of the road crossings will be included within the detailed

design stage and could include measures such as: lighting for the road crossings could seek to achieve as close to 0.5 lux as possible (in context of existing light spill from adjacent areas) by avoidance of lighting columns at crossing points (and spacing as far away from the crossing point) and the planting of trees at either side of the new road crossings, to help facilitate crossing and the reduction in the width of the 'gap' to be navigated. Specific details of lighting at the road crossing can be detailed within a lighting assessment and imposed as a suitably worded planning condition.

1.38. The northern boundary will include an attenuation feature, which will provide an additional landscape buffer for bats, in excess of 10 metres.

Conclusion

1.39. As a result of amendments to the scheme design, and production of an EPP, the proposed development has sought to 'design out' any potential impacts on bat foraging / commuting habitat, including greater horseshoe, lesser horseshoe, and barbastelle, by providing a primary 10-metre landscape/dark buffer along the eastern boundary, and landscape buffers along the southern and western boundaries.

1.40. Given the scheme design and production of the EPP, the above species of bats will be able to commute through the landscaped buffers/dark corridors. In addition, bats will be able to exploit the new habitats as a foraging resource.

1.41. The provision of financial contributions towards the Trowbridge Bat Mitigation Strategy (addressing perceived in combination recreation effects on the SAC) would remain as proposed in the submitted June 2023 Ecological Assessment.

1.42. In conclusion, it is considered that the proposed development would not generate any likely significant effects upon the integrity of the Bath & Bradford on Avon Bats SAC, or any protected species.

1.43. I trust the above information is clear and comprehensive, and enables determination of the planning application with regards to ecological matters.

Yours sincerely



Director for and on behalf of Ecology Solutions.



KEY:

- SITE BOUNDARY
- AMENITY GRASSLAND
- ATTENUATION FEATURE (SuDS)
- RESIDENTIAL AND VEGETATED GARDENS
- DEVELOPED SEALED SURFACE
- LOST HEDGE
- RETAINED HEDGE
- PRIMARY DARK BAT CORRIDOR (0.5 LUX MAX)
- OTHER POTENTIAL BAT HABITAT (NO LUX RESTRICTION AS SUBJECT TO EXISTING SPILLAGE BUT LIGHTING MINIMISED IN SO FAR AS POSSIBLE)
- SUITABLE OFFSITE BAT HABITAT ADJOINING
- WILDLIFE CORRIDOR
- BAT ROAD CROSSING
- RETAINED TREE
- PROPOSED TREE

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10993: LAND OFF FREESTONE GROVE, WESTBURY

PLAN ECO16: ECOLOGICAL PARAMETERS PLAN

Rev: B

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