



JLR

BAT EMERGENCE AND ACTIVITY REPORT

LBC2 JEA Bodyside, Halewood





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EXECUTIVE SUMMARY

WSP UK Ltd (WSP) was instructed in June 2024 by Jaguar Land Rover (JLR) Limited (the 'Client'), to complete bat surveys in relation to the proposed demolition of an existing brick-built traffic office building (B1) to facilitate the erection of three temporary structures to provide storage and distribution space (use class B8) and associated works, hereafter referred to as the 'Proposed Development'.

The building B1 within the boundary of the JLR plant, located in Halewood, Liverpool, L24 9BJ (Ordnance Survey Grid Reference SJ 44815 84283), is hereafter referred to as the 'Site'

A Preliminary Ecological Appraisal (PEA) of the Site was undertaken by WSP in June 2024 (WSP, 2024) including a Potential Bat Roost Assessment (PBRA) of structures and trees present within the Site, plus a 50m buffer ('the Survey Area').

All buildings within the Survey Area (B1, B2 and B3) were subject to one dusk emergence survey to identify if any bats emerged from Potential Roost Features (PRF). The survey was conducted in line with the Bat Conservation Trust Survey Guidelines 4th Edition (Collins, 2023). Surveyors and Night Vision Aids (NVA) were positioned around the building to ensure PRFs could be adequately monitored throughout the survey

The dusk emergence survey was carried out on 1 July 2024 in warm, dry and calm conditions. During the survey, the Site was brightly illuminated in all areas which reduces the suitability of the site for bats. No bats were observed or recorded throughout the entirety of the survey and no bats were identified emerging from the buildings surveyed.

Gulls were present overhead throughout the survey and would be a potential threat to any bats within the Site as they are known predators. It is therefore concluded that bats are not using the Site for roosting, commuting or foraging purposes and no potential ecological constraints exist on Site in regard to the demolition of building B1.

1 INTRODUCTION

1.2 BACKGROUND

- 1.2.1. WSP UK Ltd (WSP) was instructed in June 2024 by Jaguar Land Rover (JLR) Limited (the 'Client'), to complete bat surveys in relation to the proposed demolition of an existing brick-built traffic office building (B1) to facilitate the erection of three temporary structures to provide storage and distribution space (use class B8) and associated works, hereafter referred to as the 'Proposed Development'.
- 1.2.2. The building B1, which covers approximately 280m², is within the boundary of the JLR plant, located in Halewood, Liverpool, L24 9BJ (Ordnance Survey Grid Reference SJ 44815 84283), hereafter referred to as the 'Site' (**Figure 1**).

1.3 ECOLOGICAL BACKGROUND

- 1.3.1. The Site is well lit and situated within an industrial environment 2.25km to the northeast of Liverpool John Lennon Airport and directly south of Liverpool's main railway line. The Site is one building surrounded by hard standing in the form of lorry trailer parking, industrial buildings and associated roads.
- 1.3.2. A Preliminary Ecological Appraisal (PEA) of the Site was undertaken by WSP in June 2024 (WSP, 2024) detailing the results of an ecological desk study and a walkover survey of the Site, plus a 50m buffer recording all habitats and their potential to support notable and protected species. A Potential Bat Roost Assessment (PBRA) of structures and trees present was also carried out during the same visit.
- 1.3.3. Three buildings were identified within the Survey Area. Buildings B1 and B2 were recorded to have moderate potential for roosting bats and B3 was recorded to have high potential for roosting bats. Therefore, in accordance with current UK guidance, all buildings were recommended for further survey in the form of dusk emergence surveys.

1.4 SCOPE OF WORK

- 1.4.1. Following the Preliminary Roost Assessment (PRA) carried out by WSP in June 2024, the Client commissioned WSP to undertake bat surveys on the Site and surrounding buildings. The brief was to:
- Complete a single dusk emergence survey of B1, B2 and B3 to establish the presence or likely absence of bat roosts on Site; and
 - Evaluate the value of the Site for bats and make recommendations as to how proposals should account for bats with respect to legislation, planning and biodiversity policy.

1.5 RELEVANT LEGISLATION AND POLICY

- 1.5.1. Bats and their roosts are afforded a high level of protection under the Conservation of Habitats and Species 2019 (Amended) (EU Exit) Regulations (the 'Habitats Regulations'), the legislation means that it is an offence to:
- Deliberately capture, injure or kill a wild bat;

- Deliberately disturb wild bats; ‘disturbance of animals includes in particular any disturbance which is likely:
 - (a) to impair their ability —
 - (i) to survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
 - (b) to affect significantly the local distribution or abundance of the species to which they belong.
 and;
 - Damage or destroy a breeding site or resting place used by this species.
- 1.5.2. Protection is also afforded under the Wildlife and Countryside Act 1981 (as amended) with respect to disturbance of animals when using places of shelter, and obstruction of access to places of shelter.
- 1.5.3. Due to the high level of protection afforded to bats and their habitat, mitigation for this species is governed by a strict licensing procedure administered by Natural England (normally, planning permission must be obtained before a licence can be sought). Licencing is subject to three tests, as defined under the Habitats Regulations 2017 (as amended) Regulation 55, these must also be applied by the planning authority before granting permission for activities affecting bats. For permission to be granted the following criteria must be satisfied:
- The proposal is necessary for ‘preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment’;
 - ‘There is no satisfactory alternative’; and
 - The proposals ‘will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range’.
- 1.5.4. Certain species of bats including the noctule bat, brown long-eared bat and soprano pipistrelle bat are also listed as a Species of Principal Importance (SPI) for the Conservation of Biodiversity in accordance with Section 41 of the NERC Act 2006, public bodies (including local planning authorities) have a duty to have regard for the conservation of SPI when carrying out their functions, including determining planning applications.

2 METHODS

2.1 BAT EMERGENCE SURVEY

- 2.1.1. One dusk emergence survey was carried out on 1 July 2024 in warm, dry and calm conditions.
- 2.1.2. All buildings were subject to one dusk emergence survey to identify if any bats emerged from Potential Roost Features (PRF). The survey was conducted in line with the Bat Conservation Trust Survey Guidelines 4th Edition (Collins, 2023). Surveyors and Night Vision Aids (NVA) were positioned around the building to ensure PRFs could be adequately monitored throughout the survey. Survey information is shown in **Table 2-1**. Surveyor locations are shown in **Figure 2**.
- 2.1.3. The dusk emergence survey began 15 minutes before sunset and was conducted until 90 minutes after sunset. Surveyors used a combination of Elekon Batlogger 'M' © and Eco Meter Touch 2 Pro detectors to pick up and record the echolocation calls of bats within the vicinity of B1, B2 and B3. Simultaneously, surveyors monitored and mapped the flight-lines and noted the behaviours of bats observed, with particular attention paid to the use of any features by bats to exit the building. Incidental records of bat activity in the vicinity of the surveyors were also collected.
- 2.1.4. The survey was undertaken under appropriate weather conditions, considered to be:
 - A temperature of at least 10°C;
 - Absence of strong winds (6 or above on the Beaufort scale); and
 - Dry or light rain only (2 or below on a scale of 0-5).

2.2 DATA ANALYSIS

- 2.2.1. The recordings of bat echolocation calls collected during the survey was analysed using specialist sound analysis software Wildlife Acoustics Kaleidoscope (Version 5.5.0) to verify and confirm bat species observed.
- 2.2.2. Where possible, recordings are identified to species level based on call parameters. Species of the genus *Myotis*, however, are often grouped together due to calls which are similar in structure and have overlapping call parameters across the genus, making identification to species level problematic (Russ, 2021; Russ, 2019). For *Pipistrellus* species, the following criteria based on measurements of peak frequency are used to classify calls:
 - Common pipistrelle *Pipistrellus pipistrellus* ≥ 42 and <49 KHz
 - Soprano pipistrelle *Pipistrellus pygmaeus* ≥ 51 KHz
 - Nathusius' pipistrelle *Pipistrellus nathusii* < 39 KHz
 - Common/soprano pipistrelle ≥ 49 and <51 KHz; and
 - Common/Nathusius' pipistrelle ≥ 39 and < 42 KHz
- 2.2.3. In addition, the following categories are used for calls which cannot be identified with confidence due to overlap in call characteristics and parameters between species or species groups:
 - *Myotis/Plecotus* sp.;
 - *Nyctalus* sp (Leisler's bat *Nyctalus leisleri* or noctule *Nyctalus noctula*);
 - Serotine/Leisler's bat; and
 - Serotine/*Plecotus* sp.

Table 2-1 – Survey Information

Building	Date of Dusk Survey	No. Surveyor Positions	No. NVA	Temp °C	Rainfall	Wind speed (Beaufort) and direction
B1	01/07/2024	4	2	13	0	3 NW
B2	01/07/2024	2	1	13	0	3 NW
B3	01/07/2024	4	2	13	0	3 NW

2.3 NOTES AND LIMITATIONS

2.3.1. Every effort has been made to carry out a comprehensive survey, however the following limitations apply to this assessment:

- Buildings B1 and B2 were assessed to have moderate potential for roosting bats and required two emergence visits. B3 was assessed as high potential for roosting bats and required three emergence visits. However, the client only commissioned one survey of all buildings which were subject to a single survey where surveyors and NVA were positioned to maximise the viewpoint of target features.
- The Site and surrounding area was brightly lit with floodlights for the entirety of the survey and is subject to this level of illumination continuously throughout the night. Therefore this reduces the suitability of the site for supporting foraging and commuting bats and bat roosts within buildings. As a result of this factor, it is not anticipated that further surveys would yield different results from those recorded during this survey.

3 RESULTS

3.1 BAT EMERGENCE SURVEY

- 3.1.1. The first dusk emergence survey was carried out on 1 July 2024 by ten ecologists and deployment of five NVA. Four ecologists and two NVA were placed around B1; two ecologists and one NVA were placed around B2; and four ecologists and two NVA were placed around B3 (see **Figure 2**) allowing them visibility of all PRFs. The survey started at 21:27 and ended at 23:12. Favourable weather conditions were consistent throughout the survey.
- 3.1.2. No bat activity was recorded for the entirety of the survey and no bats were observed emerging from any of the buildings.
- 3.1.3. Following this initial survey and the lack of any activity across the Site, the buildings were downgraded to having low potential for roosting bats and no further surveys are required.

4 CONCLUSIONS

- 4.1.1. A single dusk emergence survey was undertaken of buildings B1, B2 and B3 on 1 July 2024. During this survey the Site was brightly illuminated in all areas and no bats were observed or recorded throughout the entirety of the survey.
- 4.1.2. In addition, gulls were present overhead throughout the survey and would be a potential threat to any bats within the Site.
- 4.1.3. It is therefore concluded that bats are not using the Site for roosting, commuting or foraging purposes and no potential ecological constraints exist on Site in regard to the demolition of building B1.
- 4.1.4. If demolition of B1 is delayed for more than 12 months, and any baseline conditions change, all buildings should be re-surveyed in relation to bats.

5 REFERENCES

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6 FIGURES

Figure 1 - Site Location Plan and Survey Area

Figure 2 - Surveyor Locations for Emergence Survey

7 PHOTOGRAPHS



Photograph 1 – B1: Multiple gaps in brickwork and around ducting on north and east aspect. Gaps in brick under roofline. Gaps under metal cladding on north, south and west aspects.



Photograph 2 – B2: Missing bricks in gap under roof on all 4 corners of building.



Photograph 3 – B3: Three sets of large shutter doors left open allowing access into building with many potential roost features inside. Small, high gap at end of metal sheeting leading into cavity wall. Three access points into single story section of building, two holes in brickwork into cavity wall, open vent leading into roof cavity.



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