Mitigation Excellence

Morelands, Arundel Road, Fontwell

Bats: Roost Characterisation Survey

Emergence / Activity

Produced on behalf of Mohammed Al-Samaraie on 15/10/2021

Site Reference: EE-21-08170-01

Site Address: Morelands, Arundel Road, Fontwell, Arundel, West Sussex, BN16 0SB

Report Prepared By: Mark Vivian MCIEEM, Principal Ecologist

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SUMMARY

Mohammed Al-Samaraie commissioned Epoch Ecology Ltd to undertake a Bat Emergence Survey (BES) for the proposed development at Morelands, Arundel Road, Fontwell, West Sussex, BN16 0SB (Grid Reference: SU 95344 06908).

The BES was supervised by Mark Vivian, a licenced bat surveyor (BSc MSc MCIEEM; Principal Ecologist; Epoch Ecology Ltd – mark@epochecology.com, 07766302243). The survey work was conducted by Mark Vivian, Tom Kirby, and Judy Tung.

The BES conducted at Morelands, Arundel Road, Fontwell, Arundel, West Sussex during August/September 2021 found nothing suggestive or suspicious of a bat emergence/re-entry from the area impacted by the development proposals. The survey area was designated to include areas directly impacted by the development proposals. The most appropriate conclusion therefore is the likely absence of bat roosts within the area impacted by the development proposals.

It should be noted that it is not possible to state unequivocally that there are no bat roosts. Bats are particularly dynamic, and their roosting behaviour changes within and between seasons, we can only be certain of what has occurred during the monitoring period. What can be stated, however, is that the surveys were conducted by experienced surveyors during optimal/suitable weather and during the optimal season for maternity roosts and bat activity. This provides confidence in the robustness of the survey data and the conclusions they have informed.

Based on the results of the BES, it is not proportionate to recommend bat-related restrictions to the development timetable or mitigation schedule.

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1.0 INTRODUCTION

Terms of Reference

1.1 Mohammed Al-Samaraie commissioned Epoch Ecology Ltd to undertake a Bat Emergence Survey (BES) for the proposed development at Morelands, Arundel Road, Fontwell, West Sussex, BN16 0SB (Grid Reference: SU 95344 06908).

1.2 The aim of the survey was to compliment the Preliminary Ecological Appraisal (PEA) which concluded the main structure on site possessed 'high' bat roost potential and that one ash tree with dense ivy growth possessed 'low' bat roost potential.

Dates & Authorship

1.3 The BES was supervised by Mark Vivian, a licenced bat surveyor (BSc MSc MCIEEM; Principal Ecologist; Epoch Ecology Ltd – mark@epochecology.com, 07766302243). The survey work was conducted by Mark Vivian, Tom Kirby, and Judy Tung.

Development Proposals

1.4 The development proposals necessitate the demolition of the main structure and the felling of immature ash tree. The development proposals represented 'high' potential to impact roosting bats.

Survey Rationale

1.5 The main structure was assessed to represent 'high' potential for roosting bats. The building offered a continuously open interior and potential access points behind fascia. There was also one tree in on-site that was colonised by dense ivy growth that could act as a refuge for bats located and was assessed to represent 'low' bat roost potential.

1.6 The immediate landscape around both features was believed to offer high quality foraging habitat for bats as the site had numerous semi-mature and some mature trees. The wider landscape offered well-established navigational corridors for to optimal bat foraging habitat (Slindon Wood). Bats, therefore, had motivation to use the site and opportunity within the site to roost.

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Figure 1: Features Identified with Bat Roost Potential During the PEA



1.7 It was therefore necessary to include an investigation into the status of bat roosts on-site with the planning application. This will provide clarity for the developer and LPA as to the appropriate way to proceed and as to what is a proportionate strategy for Avoidance/Mitigation/Compensation/Enhancement.

1.8 Amongst other things, bats, and their places of rest, are strictly protected within the Conservation of Habitat and Species Regulations 2010 (as amended). The development must therefore ensure that bats are not intentionally killed or injured during the construction process, likewise the destruction of resting places of bats must be prevented.

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2.0 SCOPE OF THE SURVEY

The aim of the Bat Emergence Survey was to:

1) Identify bat roosts within the area directly impacted by the proposals
2) Identify bat roosts in areas indirectly impacted by the proposals
3) Identify bat roosts in areas not impacted by the proposals
4) Monitor bat activity on-site, such as foraging, to identify areas worth retaining or mitigating
5) Provide recommendations for Avoidance/Mitigation/Compensation/Enhancement
6) Provide the basis of an EPS Mitigation Licence, if necessary

2.1 This report details the potential ecological resource on-site positing specific locations, where possible.

3.0 METHODOLOGY

Dates

3.1 The Potential Roost Features were monitored over two survey visits by three bat surveyors. Two survey visits, as opposed to three which is typical for 'high' potential roosts, were undertaken because a static bat survey that monitored the interior of the loft void was undertaken in conjunction with the field visits.

Main Structure (TN01, Figure 1: Page 5)

3.2 Survey Visit No. 1 (of 2) was undertaken over three dates: 18th August 2021 (dusk), 19th August 2021 (dusk), and 20th August 2021. The reason for spitting the survey visit over numerous field visit was that four surveyors could not be sourced for the survey at short notice. Survey Visit No. 2 (of 2) was undertaken over two dates: 01st September 2021 and 02nd September 2021.

Immature Ash Tree with Dense Ivy (TN02, Figure 1: Page 5)

3.2 Survey Visit No. 1 (of 1) was undertaken on 20th August 2021.

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Surveyors

3.2 The survey was designed and supervised by Mark Vivian, a licenced bat surveyor (BSc MSc MCIEEM; Principal Ecologist; Epoch Ecology Ltd – mark@epochecology.com, 07766302243). The survey work was conducted by Mark Vivian, Tom Kirby, and Judy Tung.

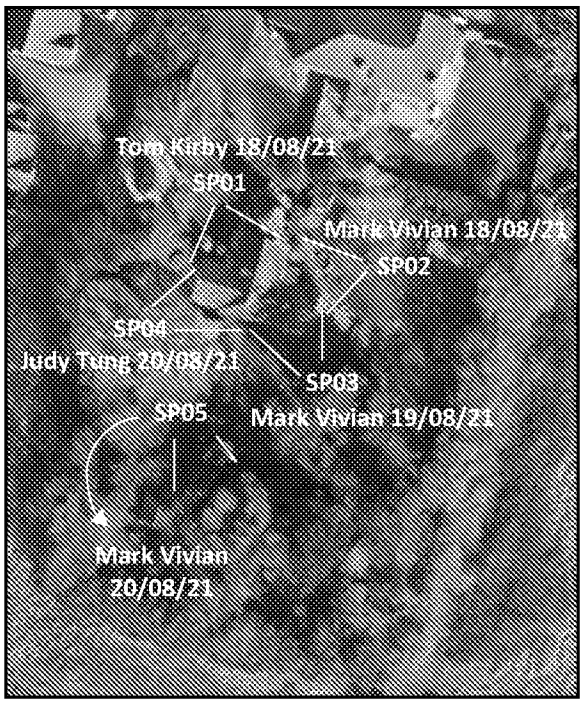
Equipment

3.3 One surveyor used an Echo Meter Touch 2 PRO in conjunction with the Echo Meter App on an iPad Air 2 to record and monitor bat activity. One surveyor used an Echo Meter Touch 2 in conjunction with the Echo Meter App on an Android-affiliated device to monitor bat activity. The surveyors used walkie talkies to communicate during the surveys to assist with the origin of bats.

Survey Points

3.4 Five survey points were designated to obtain the best possible coverage of the structure (refer to Figure 3 & Figure 3).

Figure 2: Survey Points of Survey Visit 1



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Figure 3: Survey Points of Survey Visit 2

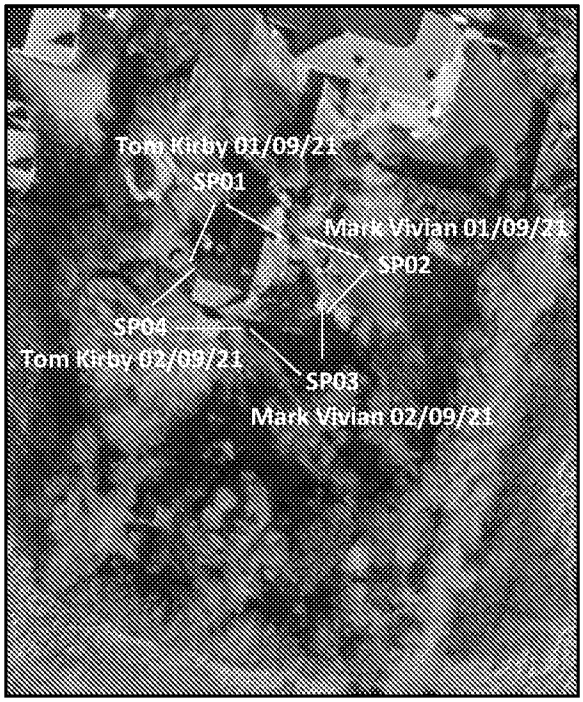


Table 1 – Sunrise/Sunset, Duration & Conditions

Survey	Date	Sunrise/Set	Start	Finish	Conditions
1	18/08/2021	2014	2000	2215	17°C, low cloud cover, negligible breeze, no rainfall
	19/08/2021	2012	2000	2215	16°C, low cloud cover, negligible breeze, no rainfall
	20/08/2021	2010	1955	2210	15°C, low cloud cover, negligible breeze, no rainfall
2	01/09/2021	1945	1930	2145	14°C, low cloud cover, negligible breeze, no rainfall
	02/09/2021	1943	1930	2145	15°C, low cloud cover, negligible breeze, no rainfall

Static Bat Detector Survey

3.5 An Anabat Express was deployed to the interior of attic of the main structure on 18th August 2021 and left recording for nights until 02nd September 2021.

4.0 RESULTS

4.1 Bat Roosts

4.1.1 Bats were not recorded roosting within any feature on-site during the survey conducted August/September 2021.

4.1.2 Nothing suggestive, or suspicious, of a bat emergence was recorded during any survey visit.

4.1.3 No bats were recorded within the interior to the attic of the main structure by the Anabat Express between 18th August 2021 and 02nd September 2021. It was based upon this and the two negative field visits that it was decided that a third survey visit was not necessary.

4.1.4 The results are very suggestive of the absence of bat roosts within the features survey as part of this investigation.

4.2 Bat Activity

4.2.1 There was very limited bat activity recorded during all survey visits.

4.2.2 The level of bat activity is highly suggestive of the absence of an active bat roost within the site.

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5.0 EVALUATION

5.1 The Bat Emergence Survey (BES) conducted at Morelands, Arundel Road, Fontwell, Arundel, West Sussex during August/September 2021 found nothing suggestive or suspicious of a bat emergence/re-entry from the area impacted by the development proposals. The survey area was designated to include areas directly impacted by the development proposals. The most appropriate conclusion therefore is the likely absence of bat roosts within the area impacted by the development proposals.

5.2 It should be noted that it is not possible to state unequivocally that there are no bat roosts. Bats are particularly dynamic, and their roosting behaviour changes within and between seasons, we can only be certain of what has occurred during the monitoring period. What can be stated, however, is that the surveys were conducted by experienced surveyors during optimal/suitable weather and during the optimal season for maternity roosts and bat activity. This provides confidence in the robustness of the survey data and the conclusions they have informed.

5.3 Maternity roosts are of the highest conservation status because they are where female bats come together to give birth and rear their pups - local population recruitment is totally dependent upon their success. Confidence in their likely absence from site is encouraging, however, in the event of locating a smaller bat roost during construction, a licenced bat worker should be contacted to devise the most appropriate course of action.

5.4 Caveats aside, the conclusion that bat roosts are likely absent from site means the protection of bats imparted by The Conservation of Habitat and Species Regulations 2010 (as amended) will not be impinged by the development proposals. Furthermore, the development proposals are of a scale unlikely to negatively impact the Continued Ecological Functionality (CEF) of local bat habitat nor the Favourable Conservation Status (FSC) of local bat populations. Based on the results of the BES, it is not proportionate to recommend bat-related restrictions to the development timetable or mitigation schedule.

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