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Bat Preliminary Roost Assessment at Springhill Farm, West Common, Langley, Hampshire, SO45 1XL

CGO Ecology Ltd
Christchurch

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Non-technical summary

Introduction

CGO Ecology Ltd (CGO) was commissioned by 2 Hats Development & Leisure Ltd to undertake a Preliminary Roost Assessment (PRA) for bats at Springhill Farm, West Common, Langley, Hampshire, SO45 1XL (SU 44010 01028). Proposals include the demolition of the four existing buildings on Site, this comprises one brick-built main house, a brick garage, a dilapidated wooden shed, and a derelict bungalow. These buildings are to be replaced with a small new residential development. The Local Planning Authority is New Forest District Council.

Methodology

CGO undertook a walkover and inspection of the property on 3rd July 2023, in suitable conditions and following standard survey guidelines. Buildings were inspected both externally and internally where possible, including roof voids where safe and accessible to do so. Internal access was not possible to one building.

Results

Bat droppings were discovered within the loft void of building 1 ('B1'). Potential roost access points were observed in B1 through gaps at the top of the wall plate, holes in roof underlining and gaps in the eaves.

No further droppings or bat evidence was found, but additional potential roost features exist in the other buildings. B2 presented external access features in the form of gaps between barge boarding on the southern gable. B3 had no suitable roost features visible. However, the structure is heavily vegetated with ivy which could be used by nesting birds.

Internal access to B4 was not possible due to the structure being unsafe. A brick chimney was present, with the building being heavily overgrown by ivy and bramble. This constrained visibility of the structure, meaning it was not possible to rule out potential roosting features under tiles and ridges.

Conclusions and recommendations

The loft space of B1 was confirmed as bat roost (species not yet determined) by the presence of droppings, considered to be recent. The house is therefore classified as having a high potential for roosting bats, and must be subjected to three dusk emergence and/or dawn re-entry surveys in the May-August period, of which at least one must be a dawn re-entry survey. This is to establish 'roost characterisation' to inform a Natural England mitigation licence application if deemed necessary. Two surveyors will be required on each survey. It is recommended that the droppings are DNA tested to determine the species.

B2 was classified as having a low potential for roosting bats, and requires one emergence or re-entry survey in the May-August period, conducted by a single surveyor on the south side.

B3 was classified as having negligible opportunities for roosting bats, and requires no further survey. Demolition must avoid the March-August nesting bird season and/or be preceded by a nesting bird check giving the all-clear prior to removal of vegetation.

B4 was classified as having low potential for roosting bats. However, access to the building's internal structure was not possible and visibility of some features was limited by vegetation. It is recommended one survey (emergence or re-entry) is conducted, with two surveyors.

The findings of these surveys will inform the next stage, which are likely to involve mitigation measures and obtaining a mitigation licence from Natural England prior to commencement of the works. The works may need to be timed to minimise or avoid disturbance and harm to bats.

If no bat emergence/re-entry is detected, it may be possible to conclude that the droppings are from an old, disused roost. If so, works could proceed under a Precautionary Method of Works, with soft stripping (by hand) of roof and cladding materials under licensed ecologist supervision. If a bat is discovered during such unlicensed works, works would need to stop immediately, and a Natural England licence might be needed, to avoid an offence under the Habitats Regulations 2017 (as amended).

If a bat is discovered at any other time during works, an ecologist must be contacted immediately, so that a suitably-experienced, qualified, and licensed ecologist can attend to advise on next steps. It may be necessary to inform Natural England.

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1. Introduction

1.1. Background

CGO Ecology Ltd (CGO) was instructed by Gary Bradford of 2 Hats Development & Leisure Ltd (the Client) to undertake a Preliminary Roost Assessment (PRA) for bats at Springhill Farm, West Common, Langley, Hampshire, SO45 1XL (the Site). The Ordnance Survey grid reference is SU 44010 01028. The Site is a cluster of four domestic buildings, including a main house, shed, garage, and derelict bungalow. Proposed works comprise of the demolition of four buildings on Site, to be replaced with a small new residential development. The Local Planning Authority (LPA) is New Forest District Council.

Bats are the only true flying mammals. UK species are exclusively insectivorous and have complex social behaviours, ethology, and ecology, governed largely by seasonal changes. All species of UK bat and their roosts are protected by the Wildlife and Countryside Act 1981 (WCA) (as amended) and the Habitats Regulations 2017 (as amended). Bats roost in a variety of features, both natural and anthropogenic. Commuting to/from these roosts to favourable feeding grounds is governed by habitat characteristics, and interwoven life-stage factors (particularly for females nursing young). Bats use ultrasonic calls to detect insect prey in the air and on surfaces.

Bat surveys are often required for development control and must be undertaken by suitably experienced and/or licensed bat workers in accordance with recognised guidance. The standard industry guidance is published by the Bat Conservation Trust: *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)* (Collins, 2016).

This report aims to inform impact-assessment within the Zone of Influence (Zoi) of the proposals. It follows CIEEM (2017, 2018) reporting guidance.

1.2. Site context

The Site is located off West Common in Langley, and is approximately 5km south of Southampton. It is on the eastern fringe of the New forest, just outside the National Park. The A31 is located approximately 10km to the northwest.

The immediate area of the Site comprises a mosaic of unmanaged lawn and deciduous shrub, with immature trees that provide suitable foraging habitat for bats. West Common is located immediately to the south of the Site, with Foresters Gate lying just past the western property boundary.

The Site consists of four buildings. Buildings 1 (B1), B2 and B4 are of brick construction, with B3 being a dilapidated open-plan wooden shed. B2 is an open plan garage, and B4 is a derelict bungalow that is heavily overgrown with ivy (*Hedera helix*) and bramble (*Rubus* agg.). B1 is the largest of the structures and consists of a multi-pitched clay pan-tile roof with rounded wet ridges and hips, wooden barge boards and soffits, and a brick chimney.

1.3. Proposed works

The proposed works involve the complete demolition of the four buildings on Site, this includes a brick-built main house, an open-plan, brick garage, a dilapidated wooden shed structure, and a derelict single-storey bungalow. These buildings are to be replaced with a small, new residential development.



Figure 1 – Site location map (red point) from DEFRA MAGIC Application Website.

2. Methodology

2.1. Desk study

The Defra MAGIC application (<https://magic.defra.gov.uk/MagicMap.aspx>) was consulted for protected bat species within a 5km radius in addition to gain protected sites information within a 5km radius and for general habitat and landscape information.

2.2. Field survey

On 3rd July 2023, a PRA was conducted to assess the Site’s potential for supporting roosting bats. This involved a walkover of the property and surrounding Site and an internal inspection of all accessible spaces including the loft.

The survey was undertaken by Becca Oswin (Natural England CL18 licence 2017-28780-CLS-CLS). The survey was conducted during daylight hours and in accordance with standard methodology (Collins, 2016) and in line with published Covid-19 advice (BCT, 2020; CIEEM, 2020; IUCN, 2020).

Inspections were undertaken with the aid of a flexible endoscope, a powerful torch, and close-focus binoculars (where appropriate). Cavities, cracks, and crevices which may offer potential emergence points or suitable roosting features for bats were identified and, where accessible, were searched.

In addition, the inspection recorded any evidence of use by bats, including (but not limited to) feeding remains such as wing casings, claw marks, staining from urine and fur, droppings, and live or dead bats. Features with opportunity for roosting were recorded and categorised according to their level of suitability, from negligible to high (cf. Collins, 2016).

Suitability was determined by factors including type, size, and locations of features; Site context, local environmental conditions, and proximity to suitable bat foraging habitat.

2.3. Interpretation and evaluation of results

Following standard bat survey and mitigation guidance (Collins, 2016), data gathered from the survey informs further activity survey proposals, if appropriate, to understand potential impacts of the proposed development upon bats, and to guide the design of suitable mitigation. Novel or known roosts, are categorised as far as possible according to the main bat roost types listed in the Natural England European Protected Species (EPS) mitigation licence application form, and in accordance with current guidelines.

These classifications are expected to be confirmed or updated following further surveys. This information is used to assess potential impacts of the proposed development and to design suitable mitigation. Suitable features may also require winter surveys to ascertain potential as a hibernation roost or if further activity surveys such as back tracking, vantage point, or landscape-based assessments such as transects are required.

Further surveys are necessitated when a classification of either low, medium, or high has occurred. Here, emergence (dusk) and re-entry (dawn) surveys are recommended on a sliding scale. A classification of low requires one survey (either emergence or re-entry) to be undertaken during the core maternity period of May to August (inclusive, weather and temperature dependent). A medium classification requires two surveys of which one must be a re-entry survey and at least one survey within the core maternity period. A classification of High requires three surveys of which at least one must be a re-entry survey and at least two surveys within the core maternity period. A classification of Negligible requires no further surveys. Surveys must be undertaken at least two weeks apart.

2.4. Limitations

Internal access to building four was not possible due to the unsafe structure, meaning an assessment could not be made of features that could be present inside the building and its roof voids. The building was also overgrown with ivy and bracken, which limited visibility of the structure. This means it is not possible to rule out possible roost features underneath tiles and ridges as well as inside the building where access could not be gained.

3. Results

3.1. Desk study

The MAGIC data search returned 10 EPS mitigation licences issued for bats within 5km of the Site. The closest of these was issued in 2012 for a non-breeding roost approximately 1.7km to the southwest of the Site. This roost contained soprano pipistrelle (*Pipistrellus pygmaeus*), serotine bat (*Eptesicus serotinus*) and brown long-eared bat (*Plecotus auritus*). The rest were issued at least 2km from the Site. Other species recorded in non-breeding roosts within 5km include Brandt's bat (*Myotis brandti*), common pipistrelle (*Pipistrellus pipistrellus*), and whiskered bat (*Myotis mystacinus*).

Five licences for breeding bat roosts were recorded within 5km of the Site. The only one of these roost licenses within 2km of the Site was issued in 2017 and is located approximately 1.8km to the southwest of the site. This roost contains brown long-eared bat, common pipistrelle and soprano pipistrelle. Grey long-eared bat (*Plecotus austriacus*), Natterer's bat (*Myotis nattereri*), and serotine bat were also noted in breeding roosts within 5km.

There are several protected site designations within 5km. The Site itself is situated within the North Solent National Nature Reserve, a Site of Special Scientific Interest (SSSI) Impact Zone, and a Wild Bird General Licence Protected Sites Condition Zone. Approximately .1km to the northwest of the site lies the New Forest Ramsar site, national park, SSSI, Special Protection Area (SPA), and Special area of Conservation (SAC). The only other protected site designation within 1km of the Site is the North Solent SSSI, lying approximately 0.3km to the south.

A Nitrate Vulnerable Zone is present approximately 1.1km from the Site to the southeast. The Solent & Southampton Water SPA and the Solent Maritime SAC both lie approximately 2.2km to the southwest. The Solent & Southampton Water Ramsar site and SSSI lie slightly further to the southwest, approximately 2.3km away. The Lepe Point Local Nature Reserve (LNR) lies approximately 2.5km to the southeast of the site.

The two furthest designations from Site are the Hythe to Calshot Marshes SSSI and the Calshot Marshes LNR, which lie approximately 3.4km to the northeast and 4km to the east respectively.

3.2. Field survey

During internal inspections, approximately 100 bat droppings were found in the loft space within B1. These were found at the southern gable end wall on the floor, with some also stuck to the breeze block end wall. The droppings were not denatured. Roost access opportunities were present in the form of gaps at the top of the wall plate, holes in the underlining and gaps in the eaves. The loft space is constructed of wooden purling and rafter with bitumen felt underlining. Old, degraded fibreglass insulation/lagging was present on the floor of the loft, which measured approximately 4m high and 6m wide. Externally, B1 is brick-built with a multi-pitched clay pan-tiled roof with rounded wet ridges and hips. Wooden barge boards and soffits are present as well as a brick chimney. This presented roosting opportunities in the form of lifted lead around the chimney.

Internal inspections of B2 identified no bats or evidence thereof. The building is an open plan garage structure floor to ceiling, with bitumen underlay in the roof and a concrete floor. Externally, the garage is brick-built, with a pitched clay pan-tiled roof with rounded wet-ridge and wooden barge boards on the gable. During external inspection, an access feature was observed as a gap between barge boards on the southern gable of the structure. The northern elevation of the building was heavily vegetated and shaded.

B3 is a dilapidated wooden shed that is open plan on the inside. It is constructed of a single skin of wooden slats and has a pitched roof constructed of unknown panelling. There is no internal underlay in the roof, and it has a concrete base. No suitable roost features were identified during survey and no bats or evidence thereof were recorded. The structure is heavily vegetated with ivy, which presents possible nesting bird opportunities. However, no nests were observed at the time of survey.

Internal access to B4 was not possible due to the unsafe nature of the structure. The building is a derelict bungalow of brick construction, it has a multi-pitched roof with asbestos tiling and no underlay. A brick chimney is present, as well as pointed wet ridges and hips. The building is heavily overgrown with ivy and bramble which constrained visibility of the structure meaning it was not possible to rule out roost features underneath tiles and ridges of the roof.

During survey it was also noted that there was a large presence of scrubs and trees on site, these may present opportunities for nesting birds to utilise the site. Bats may also utilise the habitat for foraging. It is also possible that common amphibians and reptiles could be present on site, due to the areas of grassland and piles of debris that were observed during survey.

4. Conclusions and recommendations

Evidence of roosting bats, in the form of denatured droppings, were present in the loft of the main building. Access points were also observed within the roof structure. The presence of these features in the roof, and the confirmation of a roost within the loft voids conveys a classification of high suitability for B1.

It is recommended that some droppings found in B1 are DNA tested to determine the species. Three dusk emergence and/or dawn re-entry surveys will need to be undertaken on the structure between May to August (one of them potentially in September if conditions allow). One of these must be a re-entry, and two must be undertaken during the core maternity period of May to August (weather and temperature dependent). It is estimated that two suitably-experienced surveyors will be needed to cover the building adequately on each survey occasion.

B2 presented some external access features during external inspection, which has resulted in a classification of low potential for roosting bats. This means one survey (either dusk emergence or dawn re-entry) is recommended to be conducted on the structure. This will have to take place during the core maternity period of May to August (inclusive, weather and temperature dependant). It is estimated the survey will require one surveyor on the southern elevation.

B4 was also classified as having low potential for roosting bats during survey, this is due to the limited visibility meaning it is not possible to rule out roosting features underneath the tiles and hips in the roof. Therefore, it is also recommended that a single survey (either dusk emergence or dawn re-entry) is conducted on the structure during the core maternity period of May to August (inclusive, weather and temperature dependant). It is estimated the survey will require two surveyors to adequately cover the building.

B3 was classified as having negligible opportunities for roosting bats, therefore no further surveys are recommended on this structure. It was noted that the area was heavily vegetated and presented potential for utilisation by nesting birds, it is therefore recommended that a nesting bird check is carried out by a suitably-qualified ecologist immediately prior to removal of the vegetation.

The findings of these surveys will inform the next stage, which are likely to involve mitigation measures and obtaining a mitigation licence from Natural England prior to commencement of the works. The works may need to be timed to minimise or avoid disturbance and harm to bats.

If no bat emergence/re-entry is detected, it may be possible to conclude that the droppings are from a disused roost. If so, works could proceed under a Precautionary Method of Works, with soft stripping (by hand) of roof and cladding materials under licensed ecologist supervision. If a bat is discovered during such unlicensed works, works would need to stop immediately, and a Natural England licence might be needed after all, to avoid an offence under the Habitats Regulations 2017 (as amended).

Proximity of designated sites and EPSLs show that multiple bat species are present and have been recorded breeding nearby. Bats could therefore roost in the property at any point.

If a bat is discovered at any other time during works, an ecologist must be contacted so that a suitably-experienced, qualified, and licensed ecologist can attend to advise on next steps. It may be necessary to inform Natural England.

Any novel lighting must be designed in consideration of lighting industry guidance on potential bat impacts (BCT & ILP, 2018).

This report and its conclusions remain valid for 12 months from issue, unless proposals change, in which case resurvey will be required prior to this.



Figure 2 - Aerial photograph of the Site, annotated with building numbers and suggested surveyor positions ('S').

5. References

- BCT (2020) *BCT Response to IUCN COVID-19 Recommendations for Bat Field Workers*. Bat Conservation Trust, London. <https://www.bats.org.uk/news/2020/04/bct-response-to-iucn-covid-19-recommendations-for-bat-field-workers> (Published 16th April 2020)
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- IUCN (2020) *Recommended suspension of Field Activities for the Protection of Bats*. The International Union for Conservation of Nature Bat Specialist Group, Gland. <https://www.iucnbsg.org/> (Published 12th April 2020).

6. Appendix



Plate 1 – Bat droppings discovered in the loft void of building 1.



Plate 2 – Internal Photograph of the loft space in building 1.



Plate 3 – Photograph showing gaps in the gable end of the loft void.



Plate 4 – Southern aspect of building 1.



Plate 5 –Roof of building 1, showing gaps underneath lifted lead surrounding the chimney.



Plate 6 – Eastern aspect of building 1, building 2 also seen.



Plate 7 – Northern aspect of building 1.



Plate 8 – Southern aspect of building 2, showing some gaps around the gable end.



Plate 9 – Eastern aspect of building 2.



Plate 10 – Northern aspect of building 2, showing heavy ivy growth.



Plate 11 – External photograph of building 3, showing heavy vegetation overgrowth.



Plate 12 – Internal photograph of building 3, showing light entry in the roof.



Plate 13 – Internal photograph of building 3.



Plate 14 – Southern aspect of building 4, showing heavy overgrowth by vegetation.



Plate 15 – Roof of building 4.



Plate 16 – Roof of building 4.



Plate 17 – Eastern aspect of building 4, showing cracks in wall and heavy overgrowth.



Plate 18 – Internal photograph of building 4, showing heavy damage to structure.



Plate 19 – Internal photograph of building 4, showing heavy damage to structure.