Preliminary Bat Roost Assessment			
For:	Mr David Dickson		
Site	Low Farm, Moor Lane, Syerston, Newark, NG23 5NA		
Report Date:	24 <sup>th</sup> October 2022		
Report Reference:	SQ-809		

# **Surveying Ecologist:**

Sam Toon BSc (hons) GradCIEEM

Natural England Bat Licence: 2018-35446-CLS-CLS



Client:	Mr David Dickson		
Site Name:	Low Farm, Moor Lane, Syerston, Newark, NG23 5NA		
Grid Reference:	SK 74955 47295		
Report:	Preliminary Bat Roost Assessment		
Date of survey:	20 <sup>th</sup> October 2022		
Surveyed by:	Sam Toon BSc (hons) GradCIEEM		
	Natural England Bat Licence: 2018-35446-CLS-CLS		

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1	-	Draft for review	24 <sup>th</sup> October 2022	Sam Toon BSc (hons) GradCIEEM, Estrada Ecology Ltd	Natasha Estrada BSc(hons), MRes, MCIEEM, Estrada Ecology Ltd
2	n/a	FINAL	25 <sup>th</sup> October 2022	Sam Toon BSc (hons) GradCIEEM, Estrada Ecology Ltd	Natasha Estrada BSc(hons), MRes, MCIEEM, Estrada Ecology Ltd



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The contents of this report have been produced with due consideration of current best practice guidance, and in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct and the Bat Conservation Trust Bat, Surveys for Professional Ecologists: Good Practice Guidelines, 3<sup>rd</sup> Edition).

This report should not be submitted as part of a planning application without any accompanying species-specific reports which may have been recommended herein.

Data within this report is valid for a maximum of eighteen months from the date of the survey. After this period, an updated site visit will be required to determine a new ecological baseline.

## **Summary**

The survey was commissioned to assess a barn and dog kennels at Low Farm, Moor Lane, Syerston, Newark, NG23 5NA (hereby referred to as the 'site') for their potential to support features which could be utilised by bats for roosting, and / or as a place of shelter.

During the daytime inspection, no field sign evidence synonymous with bats was recorded within barn or kennel.

The barn was considered to be in a good condition both internally and externally, with very limited features present in which bats could utilise. The kennels was situated to the east of the barn. The kennels were recorded as being in a moderate condition structurally. The only suitable features present on the southern elevation were recorded as roof tiles that had been removed prior to the survey, exposing the plastic membrane underneath.

For the purpose of assessment, when surveyed by a licensed bat ecologist with due consideration to Collins 2016, the barn and kennels were classified as containing negligible potential for supporting roosting bats. However, due to the works that had commenced prior to the survey, it is recommended that the stripping of tiles on the kennel is conducted as a soft strip as a precaution.



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No evidence of active or historical nesting birds was recorded internally within the barn or kennels, however, evidence of historical presence in the form of droppings on wooden beams was present in the barn. No field sign evidence of schedule one species was recorded within barn or kennel.



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# 1 Introduction and Background to the Site

- 1.1 A preliminary bat roost assessment is required for the site to inform the redevelopment of a barn and dog kennels at Low Farm, Moor Lane, Syerston, Newark, NG23 5NA. Under current proposals, the site is to be redeveloped (subject to the necessary consents). The survey was commissioned to assess the buildings for their ecological value, and to identify any features which bats could utilise as a potential roost, or place of shelter.
- 1.2 The site is located within the rural village of Syerston, approximately 7.9kms southwest of Newark town centre in Nottinghamshire. The central OS grid reference being recorded as SK 74955 47295.
- 1.3 The wider site comprises of further built structures including another barn and large house, with areas of hardstanding and garden vegetation present. For the purpose of this report, the barn and kennels were the subject and details are highlighted within.
- 1.4 The wider landscape is dominated by agricultural land, with further open vegetated land and deciduous woodland present on all elevations.
- 1.5 An assessment for historical/ current signs of breeding birds was undertaken along with an assessment of the buildings capability to support breeding birds.



Figure 1: The survey site within its wider location.



Google Earth

### 2 Protected Species Legislation

- 2.1 All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981. It is an offence for anyone intentionally: to kill, injure or handle a bat; to possess a bat (whether live or dead); to disturb a roosting bat; or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.
- 2.2 Relevant legislation includes the Wildlife and Countryside Act 1981 (as amended), which states that all birds, their nests, and eggs are protected by law. Special considerations of Schedule 1 birds and European protected species should be made. Relevant legislation includes the Conservation of



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Natural Habitats and Species Amendment (EU Exit) Regulations which came into force on 31 December 2020.

- 2.3 Under the National Planning Policy Framework 2019, the presence of any protected species is a material planning consideration. The Framework states that impacts arising from development proposals must be avoided where possible or adequately mitigated / compensated for, and that opportunities for ecological enhancement should be sought.
- 2.4 Under certain circumstances a licence may be granted by Natural England to permit activities that would otherwise constitute an offence. In relation to development, a scheme must have full planning permission before a licence application can be made.

## 3 Survey and Site Assessment

### 3.1 Existing information on bats, (all species) at the survey site

- 3.1.1 Bat records from Nottingham Biological and Geological Records Centre were commissioned for a 2 km radius from grid.
- 3.1.2 Consultation with Magic Map (www.magic.defra.gov.uk) was undertaken to ascertain any European Protected Species Mitigation Licences (EPSML) granted in respect of bats within a 2km radius from grid.
- 3.1.3 Further inspection, using colour 1:25,000 OS base maps (<a href="www.ordnancesurvey.co.uk">www.ordnancesurvey.co.uk</a>), MAGIC (<a href="www.magic.defra.gov.uk">www.magic.defra.gov.uk</a>), aerial photographs from Google Earth (<a href="www.maps.google.co.uk">www.maps.google.co.uk</a>), was also undertaken to provide additional context and identify any features of potential importance for nature conservation in the wider countryside.

## 3.2 Assessment of site and surrounding habitats

- 3.2.1 The site is located within an immediate rural landscape dominated by agricultural land, open vegetated areas, and pockets of woodland. Within the wider landscape, some natural roosting, foraging, and commuting habitat suitable for bats is present including:
  - Deciduous woodland compartments, the closest being 73 meters north of the site.



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- **3.3** The Survey Site: Barn and Kennels.
- 3.3.1 The survey site comprised of a single storey barn which was located in the north of the site and a small kennels which was situated east and detached from the barn. Both structures were inspected externally and internally during the survey.
- 3.3.2 The barn was recorded as containing three sections internally and was being utilised for storage and work purposes during the survey. The barn was also noted to be in frequent use, potentially on a daily basis and was subject to high levels of artificial light.
- 3.3.3 The internals of the barn were recorded as being well maintained throughout in relation to the ceiling and the walls. Two cracks within the walls were recorded during the survey, however, both were heavily cobwebbed, suggesting lack of disturbance. All remaining walls were recorded as being in good condition, with no further cracks or fissures present.
- 3.3.4 The ceiling was recorded as being in a good condition, with the felt lining showing no signs of damage or tearing in which bats could potentially utilise or access.
- 3.3.5 It was deemed that due to the condition of the internals of the barn showing no potential roosting features and the frequent use with high levels of artificial lighting, any features in which bats could utilise would most likely be present externally.
- 3.3.6 The externals of the barn comprised of brick walls with clay pantiles along the roof. The brick work was recorded as being in good condition with no evidence of damage or cracks. All mortar was present and intact with no gaps recorded which bats could potentially utilise.
- 3.3.7 The eastern elevation recorded multiple gaps along the upper sections of the wall, however, these were deemed to be architectural detailing, providing shallow recesses which did not allow access within the barn and were recorded to be more of an aesthetic feature.



Figure 2: Barn Internals



3.3.8 The roof appeared to be in a good condition and well maintained on all inspected elevations. The clay pantiles were all recorded as present and intact, with no evidence of damage or lifted tiles recorded. The main ridge was also recorded in good condition, with all tiles present, and the mortar was also recorded as being intact.



Figure 3: Barn Externals



- 3.3.9 The kennel block was situated to the east of the barn and was single storey and unused. The kennel comprised of red brick walls and clay pantile roof. The kennel was surveyed in full externally and internally, with all three compartments to the kennel accessed.
- 3.3.10 The internals of the kennels recorded no field sign evidence relating to bats. The walls were recorded as being in a good condition structurally, with no features present.
- 3.3.11 The roof was recorded to leak with running water recorded internally. This was considered to have been occurring for a prolonged length of time, as silica crystals were starting to protrude through the brickwork, demonstrating a high moisture content. One of the compartments to the kennels recorded chicken wire along the roof, potentially to deter nesting birds from utilising the structure.



Figure 4: Kennel Internals



- 3.3.12 The externals of the kennels were recorded as being in a moderate condition, with the brickwork showing no signs of damage or cracks/fissures which bats could potentially utilise. No signs of damage to the mortar was recorded between the brickwork.
- 3.3.13 The tiles were recorded as being in good condition, with no signs of damaged or lifted tiles present along the profile. The ridge was also recorded as being in a good condition, with all tiles and mortar recorded as present and intact.
- 3.3.14 A small section on the lower level of the kennel roof recorded minor works had commenced with a number of tiles being stripped from the roof, exposing the wooden timbers and plastic membrane sheeting. The removal of these tiles provided a suitable gap between the tiles and membrane which bats could utilise. However, due to the plastic membrane present



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being a suboptimal material for supporting bats and the time of year in which the works had been undertaken, it is considered unlikely bats would utilise this section.

Figure 5: Kennel Externals



- 3.3.15 For the purpose of this report, in relation to roosting bats when assessed by a licenced ecologist (2018-35446-CLS-CLS), the barn was assessed as containing negligible potential for supporting roosting or sheltering bats. No further survey effort is recommended at this juncture.
- 3.3.16 For the purpose of this report, in relation to roosting bats when assessed by a licenced ecologist (2018-35446-CLS-CLS), the kennel was assessed as containing negligible potential for supporting roosting or sheltering bats. No further survey effort is recommended at this juncture; however, a precautionary roof strip/inspection is deemed necessary to ensure bats have



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- not utilised the section of roof that has had tiles stripped between the survey and the onset of works.
- 3.3.17 The internals of the barn recorded historical evidence of bird presence along a wooden roof beam, with multiple droppings recorded. It was discussed on site that doors to the barn were kept shut, preventing access to the internals which birds could utilise. Furthermore, no accessible points within the roof which birds could utilise were noted. No impacts are predicted at this juncture within the barn.
- 3.3.18 No evidence of historical or active nesting was recorded within the kennels. Active deterrents had been installed upon the kennels in the form of chicken wire along the ceiling to prevent nesting. No impacts are predicted at this juncture





# 4 Survey Methodology

### 4.1 Daytime survey (all structures)

- 4.1.1 Where present, any cracks, fissures and beams along with internal objects and any debris were examined for bat field signs.
- 4.1.2 An external and internal examination was conducted to identify potential roost sites and access points and any signs of actual occupation such as scratch marks, droppings, smudge marks, discarded moth/butterfly wings and urine staining etc.

**Table 1:** Weather conditions throughout the survey

Date of Survey	Temperature °C	Weather Conditions
20 <sup>th</sup> October 2022	13	Wind speed 6 MPH, Visibility good. Heavy Rain.

- 4.1.3 Buildings and the quality of on-site habitats were categorised based on the classification criteria in 'Bat Surveys for Professional Ecologists' (Collins, 2016). Classification criteria is presented below:
  - Negligible: a structure or tree with features unlikely to be used by roosting bats. Habitats on site unlikely to be used by foraging or commuting bats.
  - Low: a structure or tree with one or more potential roost sites that may
    be utilised by opportunistic bats but are not suitable for use on a
    regular basis or by a large number of bats. Habitat could be used by a
    small number of foraging or commuting bats.
  - Moderate: a structure or tree with one or more potential roost sites that
    may be utilised on a regular basis but unlikely to support a roost of high
    conservation status. Continuous habitat that provides good
    connectivity within the wider landscape and offers foraging
    opportunities.
  - **High:** a structure or tree with one or more potential roost sites suitable for use by a larger number of bats on a regular basis and for longer



periods of time. Continuous high-quality habitat that is well connected within the wider landscape and offers high-quality foraging habitat.

The site is close to and connected to known roosts.

#### 4.2 Personnel

4.2.1 The survey was led by bat ecologist Sam Toon (Natural England Bat Licence 2018-35446-CLS-CLS): Qualifying member of the Chartered Institute of Ecology and Environmental Management (GradCIEEM); a licenced bat ecologist for over four years and experienced in protected species surveying for eight years.

#### 4.3 Limitations

- 4.3.1 The survey was conducted on 20<sup>th</sup> October 2022. This is a viable period to conduct preliminary roost assessments of buildings of this type and within the recognised main bat activity season.
- 4.3.2 The northern elevations of the barn and kennels were not inspected during the survey as they were only visible from neighbouring properties which had private access.

# 5 Survey Results

## 5.1 Desktop study

5.1.1 Bat records from Nottingham Biological and Geological Records Centre were commissioned for a 2 km radius from grid. The search returned one thousand and eighteen records of bats within 2km of the site, including common pipistrelle (Pipistrellus pipistrellus), Soprano Pipistrelle (Pipistrellus pygmaeus), brown long-eared bat (Plecotus auritus), noctule (Nyctalus noctula), Leisler (Nyctalus leisleri), Daubenton (Myotis daubentoni), Natterers (Myotis nattereri), whiskered (Myotis mystacinus), Brandts (Myotis brandti) and barbastelle (Barbastella barbastellus), with the remaining records returned as unidentified species. The records returned were dated between 1999 and 2020. None of the records related to the site.



5.1.2 Consultation with Magic Map (www.magic.defra.gov.uk) was undertaken to ascertain any European Protected Species Mitigation Licences (EPSML) granted in respect of bats within a 2km radius from grid. Consultation with MAGIC returned two European Protected Species Licence granted within a 2km radius from grid pertaining to bats.

**Table 2:** European Protected Species Mitigation Licenses granted within a 2Km radius from grid.

Date	Species	Licence number	Purpose of licence	Distance from site
2009-2010	Common Pipistrelle	EPSM2009-1221	Destruction of a breeding site	1.31km southwest
2015-2020	Common Pipistrelle	2015-14844- EPS-MIT	Destruction of a resting place	1.71km northeast

5.1.3 Further inspection, using colour 1:25,000 OS base maps (www.ordnancesurvey.co.uk), MAGIC (www.magic.defra.gov.uk), aerial photographs from Google Earth (www.maps.google.co.uk), was also undertaken to provide additional context and identify any features of potential importance for nature conservation in the wider countryside.

### 5.2 Inspection survey

- 5.2.1 No field sign evidence synonymous with use of the barn or kennels by bats was recorded during the survey internally. No bats were recorded in situ within accessible cracks/ fissures within the structure.
- 5.2.2 A lack of potential roosting features was recorded within barn and kennels. The barn was recorded as being in a good condition structurally and well maintained, with the internals of the barn being used regularly by the owner for personal activities, leading to possible disturbance and high levels of artificial lighting on a regular basis.
- 5.2.3 The kennels were recorded as being unused during the survey and also in a moderate condition. Roof tiles had been removed prior to the survey on the lower level to the roof, exposing the plastic membrane. It was assessed that



the section with the removed roof tiles was the only suitable area of the kennels that could provide suboptimal potential for roosting bats.

- 5.2.4 The site was assessed as being subject to low levels of artificial light splay due to its rural setting, with the only recorded artificial light emitting devices being recorded on neighbouring buildings. The internals of the barn contained artificial lighting which were used on a regular basis.
- 5.2.5 No active or historical evidence of breeding birds was recorded during the survey within the barn or the kennels, however, historical evidence of presence was recorded within the barn in the form of droppings on the wooden beams

## 6 Interpretation and Evaluation

- 6.1 An inspection survey recorded no field sign evidence synonymous with bats within the barn or kennels. No bats were recorded in situ within accessible cracks/ fissures.
- 6.2 Due to the lack of bat field signs within barn and kennels, along with the lack of potential roosting features, the barn and kennels were categorised as negligible in relation to supporting roosting bats. No further survey effort is required at this juncture, however, due to the removal of roof tiles on the lower level of the kennels, it is recommended that a precautionary roof strip is undertaken.
- 6.3 No evidence of active birds' nests was recorded during the survey and no breeding bird activity was recorded. Historical activity was present in the form of bird droppings on the roof beams; however, this was noted as an incidental record with no evidence of nesting recorded.

# 7 Ecological Constraints

- 7.1 It should be noted that this ecological appraisal provides baseline ecological data at the time of survey only and does not include flora or fauna which may be present at different times of the year.
- 7.2 An absence of species records from within a search radius does not provide confirmation that a species is absent from within the search area.



# **8** Assessment of Potential Impacts

### 8.1 Impacts on bats and their roosts

8.1.1 Based on the surrounding habitat and building features identified during the daytime initial inspection survey, the barn has been categorised (using Bat Conservation Trust Bat, Surveys for Professional Ecologists: Good Practice Guidelines, 3<sup>rd</sup> Edition) to determine the likely absence / presence of bats as outlined in Table 3.

Table 3: Roost suitability further survey effort

Roost characterisation / potential	Number of activity surveys	Low Farm - Barn and Kennels
Negligible	0	
Low	1	-
Moderate	2	-
High / Confirmed/ Displacement factors	3	-

8.1.2 No further survey effort is required at this juncture; however, a precautionary roof strip is recommended due to the works that had commenced prior to the inspection survey.

## 8.2 Impacts on habitat

- 8.2.1 Under current proposals, no encroachment on habitat suitable for use by bats is predicted and thus no impacts on potential major commuting lines or foraging grounds.
- 8.2.2 Optimum commuting lines and foraging habitat is located outside the development boundary, within a 2km radius and outside of the proposals for the site.



### 9 Conclusions and Recommendations

- 9.1 The barn and kennels within the site were assessed as containing negligible potential for supporting roosting bats. No further surveys are required at this juncture and no formal mitigation is required to facilitate the redevelopment of the site. It is however recommended that a precautionary strip of the kennel roof is undertaken due to the works that have already occurred.
- 9.2 Both buildings recorded no evidence of breeding birds, occasional splashings were recorded. No impacts are predicted.
- 9.3 Whilst every effort has been taken to ensure the accuracy of this report and its contents, in view of potential ecological constraints to development or the likely presence or absence of species, it must only be viewed as a snapshot in time and therefore not be viewed as definitive. Due to external factors such as seasonality, weather etc., having the potential to affect survey results, no liability can be assumed for omissions or changes that may or may not occur after the date this report was produced.



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#### References

Bat Conservation Trust. (May 2022). Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys.

Collins, J. (2016). Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists, Good Practice Guidelines 3<sup>rd</sup> Edition.

