



Four Gables, Netherton Wood Lane, Nailsea

Bat & Bird Survey Report

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The methodology adopted and the sources of information used by Nash Ecology in providing its services are outlined in this Report. The work described in this Report was undertaken between July and September 2023 and is based on the conditions encountered and the information available during the said period of time.

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This report is considered 'valid' for up to two years from the date the walkover survey was conducted. If an application is made after this, then it is advisable to undertake an updated survey. In addition, any significant change to the project should result in consultation with an ecologist as reassessment of the ecological constraints may be required.

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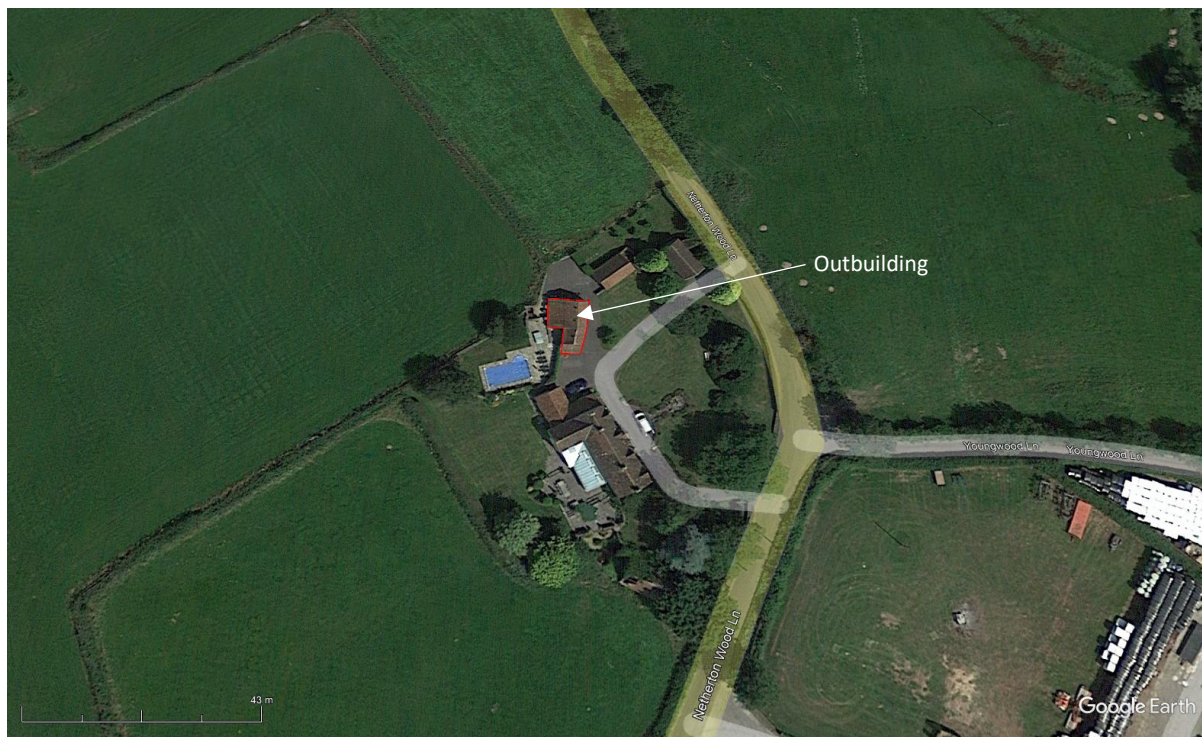
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1 INTRODUCTION

1.1 Background and Scope

Nash Ecology Ltd was instructed to carry out a bat and bird assessment of an outbuilding located at 'Four Gables, Netherton Wood Lane, Nailsea, BS48 4NW' (Figure 1). The assessment was commissioned in relation to proposals to convert the Outbuilding into ancillary living space for family members. As the works will be restricted to the footprint of the existing building and its immediate surrounds (i.e. hard standing), the ecological receptors most likely to be encountered are bats and birds. As the proposed works have the potential to adversely affect both taxa, a targeted assessment was commissioned to ascertain whether either were present.

Figure 1: Site Location (Google Earth, 2021)



1.2 Legislation and Planning Policy Summary

1.2.1 Summary of Legislation Pertinent to Bats

All bats are protected under Schedule 2 the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). When taken together it is illegal to:

- Deliberately disturb, capture, injure or kill a bat;
- Obstruct, damage or destroy a bat roosting place (even if bats are not occupying the roost at the time); and
- Possess or advertise/sell/exchange a bat (dead or alive) or any part thereof.

Seven species of bat are included on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 as 'Species of Principal Importance for Conservation in England'. These include:

- Barbastelle (*Barbastella barbastellus*);
- Bechstein's bat (*Myotis bechsteinii*);
- Noctule (*Nyctalus noctula*);
- Soprano pipistrelle (*Pipistrellus pygmaeus*);
- Brown long-eared (*Plecotus auritus*);
- Greater horseshoe bat (*Rhinolophus ferrumequinum*); and
- Lesser horseshoe bat (*Rhinolophus hipposideros*).

Section 40 of the NERC Act 2006 places a duty of care on competent authorities to consider biodiversity as a material consideration when discharging their normal functions.

1.2.2 Summary of Legislation Pertinent to Birds

Nesting birds are protected through their inclusion on the Wildlife and Countryside Act 1981 (as amended). Under the Act, it is an offence to harm a bird, its eggs or young whilst occupying a nest. For those species listed on Schedule 1 of the Wildlife and Countryside Act 1981, it is also an offence to intentionally or recklessly disturb a bird that is on or near an 'active' nest.

Forty-nine species of birds are listed on Section 41 of the NERC Act 2006 as 'Species of Principal Importance for Conservation in England'.

1.2.3 Planning Policy Summary

The National Planning Policy Framework (NPPF) 2021 was considered in the preparation of this report. The NPPF specifies the obligations that the Local Authorities and the UK Government have regarding statutory designated sites and protected species under UK and international legislation and how this is to be delivered in the planning system. Protected or notable habitats and species should be considered as a material consideration in planning decisions and may therefore make some sites unsuitable for particular types of development. If the development is permitted, mitigation measures may be required to avoid or minimise impacts on certain habitats and species, or where impact is unavoidable, compensation may be required.

2 METHODS

2.1 Desk-based Study

A desk-based study was carried out to identify designated sites and biological records relating to the site. The Multi Agency Geographic Information for the Countryside (MAGIC) website was consulted to identify statutory sites within 2 km. The MAGIC website was also used to review granted bat mitigation licences (EPSML) within 1 km and the past five years. In both cases, the search was based on grid reference ST 4604 6890.

2.2 Field Survey

2.2.1 Preliminary Bat Roost Appraisal

A Natural England-(Class 2)-licensed bat ecologist undertook a full inspection (both external and internal) of the Outbuilding on 26th July 2023. During the survey, the surveyor inspected the Outbuilding for exterior roosting locations and possible access points to the building’s interior. Such features were accessed and inspected for signs of use using an endoscope. An internal inspection for suitable roost locations and evidence of bat occupancy (such as droppings, urine spots, an absence of cobwebs and bats themselves) was then undertaken.

As bats are a cryptic group and often move between roosts, both within and between years, their presence is not always easy to detect. The Outbuilding was assessed for its Bat Roost Potential (BRP), following published guidance (BCT, 2016). The BRP categories are provided in Table 1 below.

Table 1: Bat Roost Potential Categories (BCT, 2016 and Mitchell-Jones, 2004)

Roost Potential	Description
Known or Confirmed	Confirmed signs of bat presence/ occupation (droppings, oily staining around entry points, insect remains, odour, scratching) and actual bat presence.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Negligible	No features suitable for roosting bats. Includes structures constructed from unsuitable materials e.g. prefabricated with steel and sheet material. Structure is draughty, light and cool buildings with no roosting opportunities. High levels of regular disturbance including external lighting. Building is isolated for areas of foraging habitat. In the case of trees, no

Roost Potential	Description
	potential roosting features are present, or features have no potential to support roosting bats.

2.2.2 Bat Activity Survey

An activity survey was undertaken in line with published guidance (Mitchell-Jones, 2004; BCT, 2016; BCT, 2022). The survey involved two dusk emergence surveys, each of which utilised two surveyors (including a licensed bat ecologist). The surveyors observed possible access points (identified during the initial inspection) during a key period (15 minutes prior to sunset and ended at least 1.5 hours after dusk). The surveyors were equipped with a specialist bat detector with recording capability (Batlogger M) and night vision aids (Canon XA40 camera). Where encountered, areas of significant bat activity were also recorded. The survey was undertaken during suitable environmental conditions on 25th August 2023 and 7th September 2023.

All recorded bat calls were analysed using BatExplorer (Batlogger) software following the survey. Calls were identified to species level where appropriate.

2.2.3 Initial Bird Inspection

Concurrent with the bat inspection, the Outbuilding was inspected for evidence of nesting birds.

2.3 Survey Limitations

The surveys were undertaken late in the season but within the approved survey window. No constraints to the aims of the survey were encountered.

3 RESULTS

3.1 Desk-based Study

One statutory designated site was identified within 2 km of the Site, namely Tickenham, Nailsea & Kenn Moors Site of Special Scientific Interest (SSSI). The SSSI forms part of the Avon Levels and Moors, an extensive area of low-lying agricultural land situated to the north of the Mendip Hills. The associated rhynes support an important invertebrate assemblage. The SSSI is located 1.4 km to the west at its nearest point.

A single historical EPSML was identified within 1 km, namely 2018-33784-EPS-MIT. The EPSML, awarded in 2018, permitted the destruction of a mixed, non-breeding colony of brown long-eared bats and serotine (*Eptesicus serotinus*).

The Site was located on the boundary between Bands A and B of the 'North Somerset and Mendip Bats' Bat Consultation Zone (BCZ). The BCZ was designed to control development that could affect the eponymous Special Area of Conservation (SAC). In this instance, the SAC was designated for various habitats and both greater and lesser horseshoe bats. The SAC comprises multiple component sites, the closest of which is located c. 2.2 km to the southeast. Given the distance and highly localised nature of the proposals, there are no impact pathways between the Site and the SAC habitats. However, both species of horseshoe bats are known to migrate over considerable distances; as such, the Site will be assessed for its potential to support either species of horseshoe bat.

3.2 Site Setting

The Outbuilding was located within a residential garden to the north of the main house. Further barns / outbuildings were found within the Site. The adjacent road, Netherton Wood Lane, did not include street lighting. Four Gables was surrounded by agricultural fields (primarily pasture). The town of Nailsea was located c. 0.5 km to the north.

3.3 Field Survey

3.3.1 Preliminary Roost Appraisal

The Outbuilding was a large, detached stone structure that had been partly converted by the previous owners (Plates 1-3). The exterior walls were constructed from stone and included several gaps where the mortar had washed away. These gaps were inspected and did not include evidence of bats. The Outbuilding included a lean-to in the south that was used to house the oil tanks. The lean-to included wooden fascia boards at the eaves. Fascia boards were also found on one small part of the Outbuilding's western wall. The northern gable wall included weather boarding, which included several gaps. Small gaps were present in the woodwork above the windows (Plate 4). The roof was pitched with the exception of the lean-to, which was sloping; both were clad in pan tiles (Plate 5). Three skylights were present on the western pitch. Gaps were present in the roof where the pan tiles did not sit flush with one another.

Plate 1: Outbuilding Viewed from the Southeast



Plate 2: Outbuilding Viewed from the North



Plate 3: Outbuilding Viewed from the West



Plate 4: Holes Above Windows



Plate 5: Roof with Raised Pan Tiles



Plate 6: Lower Level – Pump Room



Internally, the Outbuilding was compartmentalised into separate rooms. The lower level included an oil storage room and a pump room both of which included sloping roofs lined with bitumen felt (Plate 6). The lower level also included two rooms used for storage that had ceilings (Plate 8). The interior walls comprised exposed stone, painted stone or render. The upper level, which extended across the whole building, had been converted by the previous owners (Plate 8).

Plate 7: Lower Level Storage Space



Plate 8: Converted Upper Level



No evidence of bats was recorded within the Outbuilding.

Based on the building’s location, coupled with the holes in the wall tops and raised tiles, the Outbuilding was assessed as having Moderate BRP.

3.3.2 Bat Activity Survey

The surveys were undertaken at an appropriate time and during suitable environmental conditions (Table 2).

Table 2: Survey Timings and Environmental Conditions

Date	Sunset	Survey Times		Air Temperature (°C)		Wind Speed		Cloud cover (%)	
		Start	End	Start	End	Start	End	Start	End
25/08/23	20:13	19:58	21:43	21	18	2	1	80	100
07/09/23	19:44	19:29	21:14	27	25	0	0	50	50

Survey 1

No bats emerged from, or showed interest in, the Outbuilding.

Relatively little bat activity was recorded during the survey. A small number of common (*Pipistrellus pipistrellus*) and soprano pipistrelles were observed foraging around the garden. Noctule was recorded flying high over the Site. A *Myotis* flew across the Site at 20:48 (single pass).

Survey 2

No bats emerged from, or showed interest in, the Outbuilding.

Relatively little bat activity was recorded during the survey. A small number of common and soprano pipistrelles were observed foraging around the garden. A serotine (*Eptesicus serotinus*) was also observed foraging in the garden. Noctule was recorded flying high over the Site.

3.3.3 Birds

Old, disused swallow (*Hirundo rustica*) nests were present in the oil room and pump room. It is understood that birds have also nested within the gaps in the exterior walls. No active nests were recorded.

4 ECOLOGICAL CONSTRAINTS AND RECOMMENDATIONS

4.1 Roosting Bats

No evidence of bat activity was recorded within the Outbuilding; however, the building did include suitable roost features that could not be fully inspected (i.e. holes in wall tops and raised roof tiles). Based on the presence of these features and using published guidance (see Table 1), the Outbuilding was assessed as having Moderate BRP. During the subsequent surveys, no bats were observed emerging from, or showing interest in, the Outbuilding. Based on the combined data, the Outbuilding does not contain a bat roost. No further survey or mitigation is recommended. This conclusion is valid for two years; if no works have been started within this time, a resurvey should be undertaken. In the highly unlikely event that a bat is discovered, all works will stop and a bat ecologist will be contacted.

All of the identified Potential Roost Features were only suitable for crevice-dwelling bats. Horseshoe bats, which require flight access to their roosts, would be unable to access the Outbuilding. As such, the scheme will not affect roosting horseshoe bats. No horseshoe bats were recorded during the surveys. The footprint of the works will be restricted to hard standing and, as such, there will be no loss of foraging habitat and no risk of habitat fragmentation. Moreover, a sensitive lighting strategy will be implemented. It can be robustly concluded that the scheme will result in 'no likely significant effects' on the North Somerset and Mendip Bats SAC.

Many bat species are photophobic and actively avoid illuminated areas. To prevent impacts on foraging and commuting bats, a sensitive lighting strategy is recommended. The sensitive lighting strategy should comprise the following broad elements (BCT, 2018):

- No excessive lighting - use only the minimum amount required for safety;
- Minimise light spill – use short columns and direct light downwards and in towards the Site;
- Use narrow spectrum bulbs that emit minimal ultra-violet light - avoid white and blue wavelengths of the spectrum, which can attract invertebrates;
- Lights should either peak higher than 550 nm or use glass lantern covers to filter UV light;
- Avoid using reflective surfaces under lights; and
- Minimise the amount of light spill by good design.

4.2 Birds

No active nests were recorded; however, care should be taken to avoid disturbing nesting birds. Works will be timed to occur outside of the nesting period (i.e. carried out between September and February). If this is not practical, the Outbuilding would be inspected by an ecologist prior to works commencing.

4.3 Opportunities for Enhancement

Given the Site's location within the BCZ, bat boxes are not recommended. Rather, it is recommended that two bird boxes are included within the scheme (comprising one with a 32 mm entrance hole and one open-fronted box) to encourage a range of birds. It is recommended that woodcrete boxes are utilised as these provide longer lasting nesting opportunities than wooden boxes, which tend to rot quickly. The 32 mm box should be placed between 2 m and 4 m above ground level and the open-fronted box should be placed lower at about 2 m and within vegetation/cover. Boxes should not be

positioned too close to each other to prevent aggressive behaviour between neighbours. Further information is provided at www.rspb.org.uk.

5 REFERENCES

BCT (2018) Bats and Lighting. Bat Conservation Trust, London

BCT (2016) Bat Surveys: Good Practice Guidelines 3rd Edition. BCT, London

Mitchell-Jones, A.J. (2004) Bat Mitigation Guidelines. English Nature, Peterborough