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Inspection & Assessment in relation to Bats & Breeding Birds

March 2024

Project Reference: PR-0076-24

9 Berkshire Close
Wilpshire
BB1 9NG

National Grid Ref: SD68913302

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Executive Summary

As part of a proposed planning application regarding 9 Berkshire Close, Wilpshire, Tyrer Ecological Consultants Ltd were commissioned by Mr. T. Greenwood to undertake a daytime preliminary roost assessment in relation to bats with an inclusive inspection for breeding birds in February 2024; current proposals are understood to involve the erection of an extension on the eastern elevation.

Detailed methods, findings, conclusions and recommendations are presented throughout the report; however, the reader should be aware of the following **Key** points:

Bats:

Based upon the findings of the survey covered through sections 5.0 – 6.0 of the report and supported by **Appendix I**, 9 Berkshire Close is determined to offer a bat roost suitability of '**Moderate**' in accordance with Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023); further survey work is recommended to be carried out at the site before an impact assessment can be concluded.

Table 7.2. Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
One survey visit. One dusk emergence survey[a] (structures). No further surveys required (trees).	Two separate dusk emergence survey visits[b].	Three separate dusk emergence survey visits[b].

*It is recommended that **two dusk / emergence surveys** are conducted at the building during the active season of bats (May – August, extending into September) in order to establish if / how the building is being used by bats, and if so, identify the species present, abundance, roost locations and flight lines around the site following emergence surveys. A total of **2 surveyors** would likely be required at the site to cover all elevations host to roost potential.*

Birds:

No impacts are applicable in relation to any Sch.1 (WCA) specially protected bird species and no further surveys or recommendations are necessary in relation to specially protected birds. In relation to more common bird species, no suitable features, ingress opportunities or evidence of use was observed by the surveyor, with the building considered to be broadly unsuitable; no further surveys or recommendations are necessary in relation to common birds.

Biodiversity Enhancement:

As a means of enhancement and aiding the design of the scheme in keeping with local and national planning policy considering biodiversity net-gain principles, the proposals may consider incorporating wildlife friendly provisions in addition to those described. Further recommendations, regarding birds, native species and invertebrates are provided within **Appendix II**.

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1.0 Introduction & Reasons for Survey

1.1 As part of a proposed planning application regarding 9 Berkshire Close, Wilpshire, Tyrer Ecological Consultants Ltd were commissioned by Mr. T. Greenwood to undertake a daytime preliminary roost assessment in relation to bats with an inclusive inspection for breeding birds in February 2024; current proposals are understood to involve the erection of an extension on the eastern elevation.

Figure 1.1 – *Surveyed building highlighted in red (Source: Google Earth Pro 2023/24)*

1.2 The aim of the survey was to ascertain if the building is of value to roosting bats, whilst an assessment of nesting and general suitability for birds was also carried out. If any potential roost features (PRF's) were found to be suitable for bats, or signs of use were observed, then more detailed surveys would be recommended i.e., dusk/dawn emergence/re-entry surveys during the main active season of bats which is May – August (extending into September).

1.3 If additional surveys are required following the initial site visit this report will outline the details of those further requirements.

1.4 If it was determined that bat(s) or their roost/place of rest/shelter would be subsequently impacted by the works then a Protected Species Mitigation Licence would be legally required to proceed with the development.

1.5 If evidence indicated breeding birds may be impacted by proposals, tailored recommendations would be made accordingly, species pending.

1.6 As part of the local authority's planning policies and obligations to the Planning Framework, ecological surveys are generally required prior to planning permission being granted where protected/priority habitats and species are, or may be present, that could be affected by the proposals for which the application seeks consent. Where more detailed surveys are recommended by the ecologist, following an initial daytime investigation, then Local Planning Authorities (LPA) on the advice of their ecological advisors, will not grant permission until such time that all relevant information is gathered.

2.0 Protected Species & Their Requirements

Bats

2.1 All British bats and their **roosts are afforded full protection under the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of the Conservation of Habitats and Species Regulations (2017) (as amended). When dealing with cases where a Protected Species (all UK bats) may be affected, a planning authority is a competent authority within the meaning of Regulation 7 of the Regulations, and therefore has a statutory duty, as the local authority, to have due regard to the provisions of the Regulations in the exercise of its functions.

2.2 Use of Buildings by Bats

a) Summer breeding roost (May-August)
b) Hibernation roost (October-March)
c) Transitional or temporary roost (other months)

2.3 Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance; climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

*** The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats and Species Regulations (2017) (as amended) (Regulation 43 (d) the term roost is not used but refers to "a breeding site or resting place of such an animal" and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used, is legally protected whether or not bats are in occupation.*

2.4 Up to 11 bat species have been recorded in Lancashire, most of which use built structures, notably occupied residential properties, for roosting. Several bats feature on the local biodiversity action plan for the area; the most frequently encountered bat species is the common pipistrelle (*Pipistrellus pipistrellus*) which will roost in building crevices, and its abundant status in Lancashire is reflected throughout the UK.

Birds

2.5 All wild birds, no matter how common, their eggs, young and nests, whilst being built or occupied, are protected under both the Wildlife and Countryside Act (WCA 1981) and Natural Environment and Rural Communities Act (NERC Act 2006) from nest loss. Many bird species which occur in urban environments, for example house sparrows (*Passer domesticus*), are listed priority s.41 species on the NERC Act 2006. Birds listed on Schedule 1 of the WCA 1981, for example peregrine falcon (*Falco peregrinus*) and black redstart (*Phoenicurus ochruros*) are afforded a greater level of protection and are protected also from disturbance.

2.6 Any work that would damage an occupied nest, eggs or young of breeding birds must be avoided; any damage to nests that may occur as a result of the development should be outside of the main breeding bird season (March – August). On occasions nests can become unoccupied during the breeding season but the status of the nest(s) should be determined by a suitably experienced ecologist before any damage takes place.

2.7 Some species are subject to a greater level of protection, for example barn owl, which is listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), with nests of birds from these species being protected from disturbance as well as destruction.

Policy

2.8 Paragraph 180 of the National Policy Planning Framework (as revised in July 2023) states:

When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and,

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

2.9 Key Statement EN4 of the Ribble Valley Borough Council Core Strategy (2008-2028) entitled 'Biodiversity and Geodiversity' echoes this national focus on ecological conservation, and states:

"*The Council will seek wherever possible to conserve and enhance the area's biodiversity and geodiversity and to avoid the fragmentation and isolation of natural habitats and help develop green corridors. Where appropriate, cross-Local Authority boundary working will continue to take place to achieve this.*

Negative impacts on biodiversity through development proposals should be avoided. Development proposals that adversely affect a site of recognised environmental or ecological importance will only be permitted where a developer can demonstrate that the negative effects of a proposed development can be mitigated, or as a last resort, compensated for. It will be the developer's responsibility to identify and agree an acceptable scheme, accompanied by appropriate survey information, before an application is determined. There should, as a principle be a net enhancement of biodiversity."

2.10 Where more detailed surveys are recommended by the Ecologist following a daytime assessment, then the Local Planning Authority, upon the advice of their ecological advisors, should not determine an application until such time that all relevant information is gathered, i.e. - until all required survey work has been completed.

2.11 This is in accordance with the obligations placed upon Local Authorities in the exercise of its functions by way of its duties under the Conservation of Habitats and Species Regulations (2017) (as amended) and Biodiversity duty[1].

[1] Complying with the biodiversity duty - GOV.UK (www.gov.uk)

3.0 Survey Methodology

3.1 As part of the Inspection & Assessment for Bats and Breeding Birds report, a desk-top and field-based study is conducted. Methods for both components of the appraisal are given below.

Desktop Study

3.2 Prior to a site visit a desktop study was conducted using online resources to obtain information pertaining to any sites afforded statutory (e.g. SSSI) and non-statutory (e.g. LWS) designations within 2.0 kilometres of the site boundary. To do so, the Multi Agency Geographic Information for the Countryside (MAGiC – provided by DEFRA) was accessed to gather such information; this particular interactive mapping service was also used to locate any locally granted European Protected Species Mitigation Licenses (EPSML) and species records to further inform conclusions concerning such species in the context of the study site and its proposed development.

3.3 Historic satellite imagery was reviewed using sources such as Google Earth (© 2023/24) to help establish past use of the site and determine the nature of adjoining and extending habitats; such information aids in the understanding of how the site might interact with its surroundings ecologically and its value in that context, and how the development may impact at a wider scale.

3.4 A commercial data request to the Local Environment Records Centre serving the area, Lancashire Environmental Records Network (LERN) has not been sourced by the Ecologist and is justified through application of the following guidance:

1) The Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK (CIEEM, 2020) states:

"*It is generally expected that a desk study, including a data search, will be a key part of the ecological surveys or reports produced to inform a planning application. Freely available web-based sources of data and contextual information should always be used; in some cases, it may be acceptable to not undertake a data search with the LERC or other relevant NSS or local interest groups, for example:*

ii) Situations where the data search would be extremely unlikely to provide information needed to inform the assessment, due to the scale and location of the proposed development. The appropriateness of excluding a data search will need to be judged on a case-by-case basis as, in most situations, it will be essential to carry out such a search even if the development is very small or is likely to have a low impact. It can be very difficult to demonstrate that a data search would not have provided relevant information without obtaining and reviewing those data.

iii) In some cases for Preliminary Roost Assessments of buildings in low impact / small-scale scenarios, such as an extension to a residential property, loft conversions (full or partial), installation of Velux/dormer windows, single modern agricultural or similar building conversion or demolition; however, it should not be assumed that data searches are never required for such scenarios and this must be judged on a case by case basis and justified accordingly.

2) The Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017) also states:

"Very occasionally it might be possible to carry out a robust PEA without obtaining LERC/NBDC/CEDaR data; this will usually only apply to low impact or small-scale projects (e.g. by virtue of size, extent, duration of works, magnitude and locality), and should be determined on a case-by-case basis."

3.5 As the exemptions above can be applied at the site whilst following best practice, it is considered unnecessary to conduct a commercial data request following the desk study effort and daytime assessment at this time.

Field Survey

3.6 In context with the above, a diurnal inspection and assessment of the building in relation to bats and breeding birds was conducted on 28th February 2024 in drizzly conditions (6ºC), wind 1/12 (Beaufort scale), average 100% cloud, by the following surveyor (see **Table 3.1**):

Table 3.1 – Site surveyor credentials

Name	Description of most relevant credentials
Mr. H. Mulligan Qualifying CIEEM	• Junior Ecologist with two years of training and experience, • MBiolSci in Biological Sciences (Zoology), • Accredited agent on the (Class 2) Natural England bat licence of Mrs. K. Wilding (CLS-14227).

3.7 Bat Conservation Trust (BCT) - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2024) states:

"*The guidelines should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. The question should not be whether the guidelines where followed, but whether the objectives of the survey met? Where examples are used in the guidelines, they are descriptive rather than prescriptive."*

3.8 The bat and breeding bird assessment was conducted in tandem; the building was inspected for potential places that may be of value to bats or breeding birds and to determine if evidence of use by any group was present. An internal assessment of the building took place with the aid of a high-powered torch for evidence of bat use, which mainly includes bat droppings and/or prey items, or the incidental presence of live or dead animals, and investigated for evidence of breeding birds which broadly involves a search for nesting materials, presence of pellets or accumulated faeces and/or dead juveniles/hatchlings.

3.9 External elevations were investigated with the aid of a high-powered torch and close focus binoculars (where necessary) for places that can be used as a roost by bats or as a means of ingress for bats and birds leading to areas of roosting/nesting potential. These features are typically referred to as potential roost features (PRF) concerning bats. All external features were able to be surveyed without constraint.

3.10 A daytime bat walkover (DBW) of the immediate surrounding habitat was also carried out to assess the general suitability of the local habitats or features suitable for usage by bats, either as commuting, foraging or roosting provision. Wider connectivity to other habitats was also considered during the DBW.

3.11 Trees (where present) would also be subject to a ground level tree assessment (GLTA); this typically involves a search for potential roost features along with an investigation of those features using a high-powered torch or close focus binoculars. Potential roost features can include woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed lifted bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached Ivy with stem diameters in excess of 50mm or bat/bird boxes.

3.12 Criteria for roost assessment are based upon the determinants given in the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023): (see **Figure 3.1**).

3.13 An assessment of the site was conducted when birds are outside of their breeding season (this is typically March – August inclusive). Trees (where present) were inspected for evidence of birds known to be present within the local area, encompassing both common and species protected under legislation, for example on section 41 of the Natural Environment Rural Communities Act 2006 (NERC Act) or on the Local Biodiversity Action Plan (LBAP).

3.14 Additional to the site's capacity to support common species of bird, the area was subject to an assessment for capacity to support specially protected species such as barn owl.

3.15 The results, conclusions and recommendations are based on a number of factors i.e.

- Practical experience of surveyor,
- Knowledge of bat/bird species relevant to the site location and geographical range,
- Nature of immediate/surrounding habitat in relation to foraging/commuting for all three groups (bats and birds),
- Condition of the building,
- Presence/absence of a loft space or cellar and reasonable practicality of use,
- Presence/absence of roost potential,
- Value of roost potential – if present.

3.16 The results, conclusions and recommendations of this report have been assessed by Mrs. K. Wilding, the Director of Tyrer Ecological Consultants Ltd, and her assessment is consistent with that of the surveyor Mr. H. Mulligan.

Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Potential suitability	Description	
	Roosting habitats in structures	**Potential flight-paths and foraging habitats**
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible*	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions[b] 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 and not a classic cool/stable hibernation site, but could be used by individual hibernating bats[c]).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions[b] and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure 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[b] and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Figure 3.1 – *Bat Conservation Trust (BCT) guidelines extract*

4.0 Limitations

4.1 The survey took place outside of the bat active season (May – August, extending into September). Evidence of bats can be less apparent at this time; however, bat roost potential and suitability of potential roost features can be adjudged as decisively as within the active season of bats, saving time and unnecessary delay to applicants, thus frequently the assessment can be as conclusive as the active season and timing is not considered a constraint in this instance.

4.2 The survey took place outside the breeding bird season typically considered to be March – September, therefore incidental breeding bird behaviour has a low probability of being encountered. Suitability for breeding birds is readily identifiable all year round however, and often nesting material left from the previous years can attest to the presence of breeding birds, and as such timing is not considered a constraint in this instance.

4.3 Considering the above constraints, no significant limitations were experienced that might adversely influence the results, conclusions, and recommendations of this report which are presented following best practice.

5.0 Desk Study Results

5.1 The site is located to the east of Berkshire Close in Wilpshire, approximately 5.0 kilometres north of Blackburn town centre (see **Figure 5.1**).

Figure 5.1 – *Location of the site (red boundary) within the landscape (Source: Google Earth Pro 2023/24)*

5.2 The immediate environment is largely suburbanised within Wilpshire, with typical residential development in all directions characterised by detached and semi-detached housing with associated landscaped gardens and garden trees, while a small area of urban green space is located directly to the south of the site featuring a stretch of hedgerow and urban trees. Approximately 100 metres to the north habitats become distinctly more naturalised beyond the extent of Wilpshire, with extending rural grassland and areas of deciduous woodland, while linear blocks of woodland border a railway line just 200 metres to the west.

5.3 The extending environment is increasingly ruralised in most directions, with a patchwork of arable grassland fields divided by linear hedgerows and tree lines, various areas of woodland, and small rural settlements. In contrast, development increases to the south where the villages of Wilpshire and Brownhill extend towards Blackburn, though farmland and more semi-natural habitats are still in proximity to these areas, such as along Knotts Brook and in Wilpshire Golf Club, bringing areas of grassland, woodland and waterbodies. A variety of priority habitats are present within a 2.0 kilometre radius, including purple moor grass and rush pasture, lowland heathland, traditional orchards and lowland calcareous grassland.

5.4 As discussed, linear features are present in both the immediacy and contiguous landscape, and link the site to wider habitats of high value for a range of protected species, particularly for airborne species such as bats and birds, with those considered most likely to exist in proximity to the site being the common pipistrelle bat, a species that typically utilise built structures for

roosting, the brown long-eared bat, which is typically linked with areas of broadleaved woodland, and a variety of bird species known to exist in the surrounding landscape and which are capable of utilising structures for nesting purposes.

NB: *Where quality habitat is present close to buildings then the percentage use of those buildings, by bats, increases given that roost opportunities are available and vice versa.*

5.5 There are no statutory designated sites within a 2.0-kilometre radius.

5.6 The site does however fall into the impact risk zone (IRZ) of several Site of Special Scientific Interest (SSSI) including Harper Clough and Smalley Delph Quarries and Red Scar and Tun Brook Woods. Despite this, the proposals do not meet any of the criteria that would trigger the requirement for Natural England to be consulted, and given the small scale of the proposed works, there is unlikely to be any direct impact upon any site or its associated interest features. Where no impact to SSSI's is predicted, Natural England (NE) issue the following advice within their standing guidance on SSSI impact zones (NE, 2019):

"*It is important to note that the SSSI IRZs only indicate Natural England's assessment of likely risk to the notified features of SSSIs. Where they indicate such a risk is unlikely, this does not mean that there are no potential impacts on biodiversity or the wider natural environment.*"

5.7 An online search of MAGiC maps revealed that two European Protected Species Mitigation Licences (EPSMLs) have been granted within a 2.0 kilometre radius of the application (see **Table 5.1** below for further information).

Table 5.2 – EPSML data records from MAGiC Maps

Licence Number	Distance from Site	Context (where relevant)
Bats		
2018-37510-EPS-MIT	1.7 kilometres north-west	Destruction of a breeding common pipistrelle roost.
2020-50449-EPS-MIT	1.9 kilometres north-west	Destruction of a non-breeding Natterer's roost.

5.8 Tyrer Ecological Consultants Ltd have previous and ongoing projects involving bats within the 2.0 kilometre area surrounding the site – as such, the following biological data (see **Table 5.2** is readily available to the Ecologist from the company database – all data has been previously submitted to the LERC serving the area, which, in this case, is LERC.

Table 5.2 – LERC submitted biological data records collected by Tyrer Ecological Consultants Ltd

Year	Distance from site	Context (where relevant)
2020	1.2km north-west	Natterer's **Day roost**
2020	1.9km north-west	Common pipistrelle **Day roost** & Myotis sp. **Day roost**

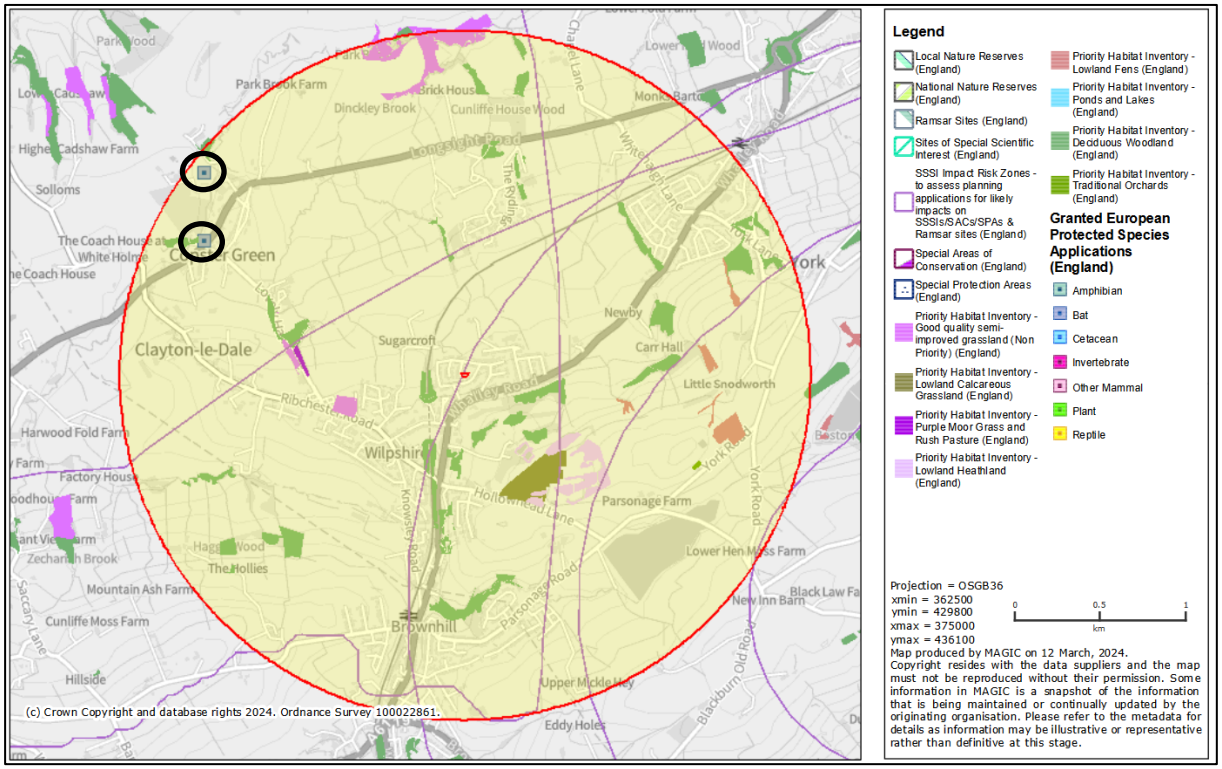

Figure 5.2 – *Visual aid showing priority habitats, EPSML (circled in black) and designated site data for the area within 2.0 kilometres of the site.*

6.0 Field Study Results

Bats

6.1 The surveyed building is an occupied, two-storey, partially rendered and brick-built building with an interlocking clay tiled roof; the building has an original pitched roof section to the north and a more modern hipped roof section to the south, with small single storey extensions to the south-east and north, and is to the approximate maximum dimensions of 15.0 x 12.0 x 8.0 metres (length x width x height). The building features UPVC windows, sills, soffits, fascia and gable capping. In respect of its condition, the surveyor is not qualified to assess structural state, however the state of the building is considered to be in a good condition, with no degradation noted externally.

6.2 Internally, there is an interconnected loft space of two separate structures covering the entire footprint of the building; the northern half of the loft space beneath the pitched section of the roof is of a purlin and rafter construction, while the southern half of the space beneath the hipped section of the roof is of a trussed beam construction, with both sections having an apex height of approximately 2.0 metres. The entirety of the loft space was noted to be cool and draughty, dark with minimal light ingress (although artificial lighting is present), and relatively cramped due to its structure and its usage as a storage space, with rockwool insulation present throughout and minor cobwebbing.

6.3 Given the structure and aforementioned climatic conditions of the loft space, the building is considered to be broadly unsuitable for the breeding requirements of loft-dwelling bat species such as the brown long-eared (*Plecotus auritus*), which is a species that prefers breeding sites such as dark, open, undisturbed loft spaces with consistent thermal conditions and open areas permitting free flight. This does not rule out the building being used by these species for purposes other than breeding, though no evidence to suggest this was located by the surveyor.

6.4 A traditional bitumen 1f underlining is present beneath the roofing materials in both sections of the loft space; where present, underlinings typically improve a building's value to bats, notably for crevice-dwelling bats of the *Pipistrellus* genus, whereby the bats roost between linings and the roof cover material provided external access opportunities exist. In addition, a collection of droppings (~10) accredited to a bat of the *Pipistrellus* genus was observed by the surveyor within the northern half of the loft space, close to the eastern gable; these droppings were considered to be relatively fresh.

NB: *The breeding roosts of Pipistrelle bats are proportionally higher in occupied residential dwellings where the warm, dry conditions favour the requirements of a maternity colony but other structures are also used, especially for hibernation or by male bats which do not need the same conditions as a maternity colony.*

6.5 Externally, the building's features appeared to be relatively tight; no roof tiles were observed to be slipped, missing or raised, while the UPVC elements were largely tight to the building with the exception of a small gap in the soffit to the south of the building.

6.6 Despite the lack of observed ingress opportunities on the building, often potential roost features cannot be identified from ground level, with small and unobtrusive gaps often utilised by bats and only made apparent during survey effort. The presence of droppings within the loft space means that bats have evidently utilised the building in recent times, and as a result, 9 Berkshire Close is categorised as offering a bat roost suitability of '**Moderate**'.

6.7 There are no trees that will be affected by the proposed works to warrant any consideration.

Breeding Birds

6.8 In relation to WCA Schedule 1 specially protected bird species such as barn owl, no evidence or specific suitability was found to suggest any form of site use or historic nesting and direct impacts to protected bird species can be confidently ruled out from the proposals.

6.9 In relation to more common bird species, no evidence of nesting was encountered during the survey, with the building considered to be absent of features that could be utilised by urbanised bird species or provide ingress for these species.

7.0 Conclusions & Recommendations

Bats

7.1 Based upon the findings of the survey covered through sections 5.0 – 6.0 of the report and supported by **Appendix I**, 9 Berkshire Close is determined to offer a bat roost suitability of '**Moderate**' in accordance with Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023); further survey work is recommended to be carried out at the site before an impact assessment can be concluded.

Table 7.2. Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
One survey visit. One dusk emergence survey[a] (structures). No further surveys required (trees).	Two separate dusk emergence survey visits[b].	Three separate dusk emergence survey visits[b].

Figure 7.1 – *BCT extract on 'Moderate' suitability criteria*

7.2 It is recommended that **two dusk / emergence surveys** are conducted at the building during the active season of bats (May – August, extending into September) in order to establish if / how the building is being used by bats, and if so, identify the species present, abundance, roost locations and flight lines around the site following emergence surveys. A total of **2 surveyors** would likely be required at the site to cover all elevations host to roost potential.

7.3 Natural England provides information and guidance about licensing and the following extract is included in that guidance:

"If you intend to apply for a licence for development, you are advised to seek the guidance of a consultant ecologist. Natural England's view is that a licence is needed if the consultant ecologist, based on survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably likely to result in an offence under the Conservation of Habitats & Species Regulations 2019 (as amended).

If the consultant Ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably unlikely to result in an offence being committed then no licence is required. However, in these circumstances Natural England would urge that reasonable precautions be taken to minimise the effect on European protected species should they be found during the course of the activity. If European protected species are found, cease the work until you have assessed whether you can proceed without committing an offence. A licence should be applied for if an offence/s is unavoidable, and the work should not commence until a licence is obtained.

The application should be completed by the developer and a consultant ecologist. The ecologist will need to be able to demonstrate to the satisfaction of Natural England that they have the relevant skills and knowledge of the species concerned.

7.4 Where more detailed bat surveys are recommended by the Ecologist, following an initial daytime investigation, then Local Planning Authorities, on the advice of their ecological advisors, may not determine the application until such time that all relevant information is gathered, i.e., by conducting dusk / dawn surveys. The advice that is provided by the ecological advisors is also in accordance with the obligations placed upon Local Authorities by way of its duties under the Conservation of Habitats & Species Regulations 2019 (as amended). Therefore, it would be prudent to make enquiries to the relevant departmental Planning Officer

before submitting a Planning Application that includes an ecological survey report that recommends more detailed surveys.

7.5 Installation of overly harsh artificial lighting as part of any development that exceeds current levels may have a negative impact upon foraging / commuting bats in the landscape, subject to their presence, particularly if increased light spillage occurs in areas of that are currently free from illumination. A bat-sensitive lighting plan is therefore recommended in order to avoid potential impacts to bats that may use the surrounding treelines. Several options to consider have been listed below, though the reader is referred to the Bat Conservation Lighting Guidelines for further information (see **Table 7.1** below).

Table 7.1 – Extract from *Bats and Artificial Lighting at Night*, BCT (August 2023)

Appropriate luminaire specifications: Light sources, lamps, LEDs and their fittings come in a myriad of different specifications which a lighting professional can help to select. However, the following should be considered when choosing luminaires and their potential impact on Key Habitats and features:

- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability
- A warm white light source (2700Kelvin or lower) should be adopted to reduce blue light component
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012)
- Internal luminaires can be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill
- Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered - See ILP GN01
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt
- Where appropriate, external security lighting should be set on motion-sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand
- Use of motion sensors for local authority street lighting may not be feasible unless the authority has the potential for smart metering through a CMS
- The use of bollard or low-level downward-directional luminaires is strongly discouraged. This is due to a considerable range of issues, such as unacceptable glare, poor illumination efficiency, unacceptable upward light output, increased upward light scatter from surfaces and poor facial recognition which makes them unsuitable for most sites. Therefore, they should only be considered in specific cases where the lighting professional and project manager are able to resolve these issues.
- Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed. However, due to the lensing and fine cut-off control of the beam inherent in modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely.

Breeding Birds

7.6 No impacts are applicable in relation to any Sch.1 (WCA) specially protected bird species and no further surveys or recommendations are necessary in relation to specially protected birds.

7.7 In relation to more common bird species, no suitable features, ingress opportunities or evidence of use was observed by the surveyor, with the building considered to be broadly unsuitable; no further surveys or recommendations are necessary in relation to common birds.

Biodiversity Enhancement

7.8 As a means of enhancement and aiding the design of any future schemes should they come to fruition in keeping with local and national planning policy considering biodiversity net-gain principles, the proposals may consider incorporating wildlife friendly provisions in addition to those described. Further recommendations, regarding birds, native species and invertebrates are provided within **Appendix II**.

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Appendix I: Site Photographs

Plate 1 – *Front (western) elevation of 9 Berkshire Close, with roof pitch to left and hip to right*

Plate 2 – *Rear elevation of the building*

Plate 3 – *Tight nature of roof tiles and UPVC capping*

Plate 4 – *Nature of the soffit to the south, with potential gap*

Plate 7 – *Tight-fitting nature of soffits*

Plate 8 – *Further angle of western aspect*

Plate 9 – *Character of loft space beneath roof pitch*

Plate 10 – *Bitumen lining within loft space*

Plate 11 – *Collection of droppings located within loft space*

Plate 12 – *Character of trussed beam section of loft space*

Appendix II: Biodiversity Enhancement: General Recommendations

Breeding Birds – House Sparrow

The sparrow terrace has been designed to help redress the balance of falling house sparrow numbers. The current UK population is now half of what it previously was in 1980 and this is widely attributed to habitat destruction and lack of suitable nesting spaces. House sparrows are social birds and like to nest in company, therefore, this terrace provides ideal nesting opportunities for three families. The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of buildings.

Breeding Birds – Starling

Starling populations have declined dramatically in recent years and are now on the Red List of birds of high conservation concern. Loss of habitat is one of the major pressures on this species and household renovations and new buildings offer much fewer nesting sites than have previously been available. Providing these birds with a safe and secure habitat and nesting environment is a great way to help ensure their future survival.

This Vivara Pro WoodStone® Starling Nest Box has a 45mm diameter entrance hole which makes it ideal for starlings. It should be sited on an external wall or tree at a height of at least 1.5m using an aluminium nail or screw and wall plug (not included). Site near to vegetation if possible as this will provide additional protection and cover.

Breeding Birds – Other

This traditional design has proved to be highly effective in attracting Robins, as well as other small species such as Black Redstart, Spotted Flycatcher and Wren. It is designed to be installed on the walls of houses, barns, garden sheds or other buildings and should be hung so that the entrance is to one side (at an angle of 90° to the wall). The front panel can be easily removed for cleaning.

This type of box should not be made conspicuous on a tree or bush because small predators can enter through the unprotected opening. By hanging on a wall, predators won't be able to reach the box. Alternatively hide the box in Ivy, Honeysuckle or other climbing plants.

Native Planting and/or Landscaping

New feature landscaping should incorporate native woody plants as opposed to non-native species that are of significantly less benefit to biodiversity. Species such as Blackthorn (*Prunus spinosa*), Honeysuckle (*Lonicera periclymenum*), Rowan (*Sorbus aucuparia*), Guelder-rose (*Vibernum opulus*) and Hawthorn (*Crataegus monogyna*) are native and will provide a valuable resource for a myriad of wildlife as opposed to non-native, exotic species which are generally much less effective, particularly to pollinator groups including bees, butterflies and moths.

Suitable Trees	Suitable Woody Shrubs
English Oak (*Quercus robur*)	Hawthorn (*Crataegus monogyna*)
Rowan (*Sorbus aucuparia*)	Honeysuckle (*Lonicera periclymenum*)
Wild Service Tree (*Sorbus torminialis)*	Guelder Rose (*Vibernum opulus*)
Silver Birch (*Betula pendula*)	Elder (*Sambucus nigra*)
Ash (*Fraxinus excelsior*)	Wild Privet (*Ligustrum vulgare*)
Goat Willow (*Salix capraea*)	Blackthorn (*Prunus spinosa*)
Beech (*Fagus sylvatica*)	
Wild Cherry (*Prunus avium*)	