



Bringing Together Over 30 Years of
Ecological Excellence

Tyrer Ecological Consultants Ltd, Roselands, Suite 1, 3, Cross Green, Formby, L37 4BH

Inspection & Assessment in Relation to Bats & Breeding Birds

September 2023

Bone Heys Farm

Haugh

Newhey

Rochdale

OL16 3SZ

National Grid Ref: SD94711099



Document Title	Inspection & Assessment in relation to Bats & Breeding Birds
Issue no.	1.0
Prepared for	P. Wilson & Company Chartered Surveyors
Prepared by	Tyrer Ecological Consultants Ltd

Surveyor	Mr. H. Mulligan Qualifying CIEEM
Author	Mr. H. Mulligan Qualifying CIEEM
Survey Date	01/09/2023
Reviewed by	Mrs. K. Wilding CEnv MIEMA ACIEEM
Review date	27/09/2023
Approved by	Mrs. K. Wilding CEnv MIEMA ACIEEM
Date of Issue	27/09/2023

Terms of use:

This report has been prepared by Tyrer Ecological Consultants Ltd with all reasonable skill, care and diligence within the terms of the instruction and permissions granted by the client. The results, conclusions and recommendations of this report are presented in line with the British Standard 42020:2013.

Tyrer Ecological Consultants Ltd have produced this report with all due integrity and adhere to the CIEEM Professional Code of Conduct, with the aim of upholding these objectives and the reputation of the profession.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client.

This report and contents therein are to be used only in conjunction with the Planning Application for which the report has been produced. It must not be used for any other purpose, copied, re-produced or sent to any other party other than the Local Planning Authority Department without the express permission of Tyrer Ecological Consultants Ltd. Furthermore the data contained herein must not be copied, re-produced or sent to any other party/organisation whatsoever without the express permission of Tyrer Ecological Consultants Ltd.

Tyrer Ecological Consultants Ltd will however consider forwarding data that is collected as part of its reports to the relevant wildlife records centre.

Executive Summary

As part of a proposed planning application regarding Bone Heys Farm in Haugh, Tyrer Ecological Consultants Ltd carried out a daytime preliminary roost assessment in relation to bats with an inclusive inspection for breeding birds in September 2023. The survey was commissioned by P. Wilson & Company Chartered Surveyors; proposals are understood to involve the demolition of the building onsite followed by redevelopment.

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 6.0 – 7.0 of the report and supported by **Appendix I**, the building at Bone Heys Farm is determined to offer ‘**High**’ bat roost suitability in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016), warranting the requirement for further survey effort at the site before an impact assessment can be concluded.

Table 7.3 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	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey ^a (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey ^b	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn. ^b

It is recommended that three dusk emergence and/or dawn re-entry surveys are conducted at the site during the active season of bats (May – August, extending into September), in order to establish if / how the garage is being used by bats, and if so, identify the species present, abundance, roost locations and flight lines around the site following emergence / re-entry.

Breeding Birds: No impacts are applicable in relation to any Sch.1 (WCA) specially protected bird species such as barn owl and no further surveys or recommendations are necessary in relation to specially protected birds. In relation to common birds, evidence of historic nesting was observed during the inspection in the form of faecal splashing within Section C, while the open nature of the building and the PRFs present could feasibly support a wide range of common species.

In the interests of potential impact avoidance it is recommended that the works should be undertaken outside of the nesting bird season. The nesting bird season is weather dependent but generally extends between March and September inclusive (peak period March-August). For works within the breeding bird season, any areas that can support nesting birds should be checked by a professional Ecologist for nesting birds within 48 hours or less prior to works commencing. If birds are found nesting any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally, for example via the implementation of an appropriate buffer zone (species dependent) around the nest in which no disturbance is permitted until the nest is no longer in use.

Incidental Observations: A single INNS was identified on site by the surveyor – Himalayan balsam.

Whilst it is not illegal to host these species within your garden, it is an offence, under current legislature, to knowingly permit the spread of INNS beyond the confines of your site, either via allowing it to grow unchecked or through the irresponsible removal and dumping of waste. It is recommended this species be treated/removed as part of the planning permission process with measures outlined by planning condition.

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**.

Table of Contents

1.0 Introduction & Reasons for Survey

2.0 Protected Species & Their Requirements

3.0 Protected Species in Greater Manchester

4.0 Survey Methodology

5.0 Limitations

6.0 Desk Study Results

7.0 Field Study Results

8.0 Conclusions & Recommendations

9.0 Bibliography

Appendix I: Site Photographs

Appendix II: Biodiversity Enhancement: General Recommendations

1.0 Introduction & Reasons for Survey

- 1.1 As part of a proposed planning application regarding Bone Heys Farm in Haugh, Tyrer Ecological Consultants Ltd carried out a daytime preliminary roost assessment in relation to bats with an inclusive inspection for breeding birds in September 2023. The survey was commissioned by P. Wilson & Company Chartered Surveyors; proposals are understood to involve the demolition of the building onsite followed by redevelopment. See **Figure 1.1** for site location plan.

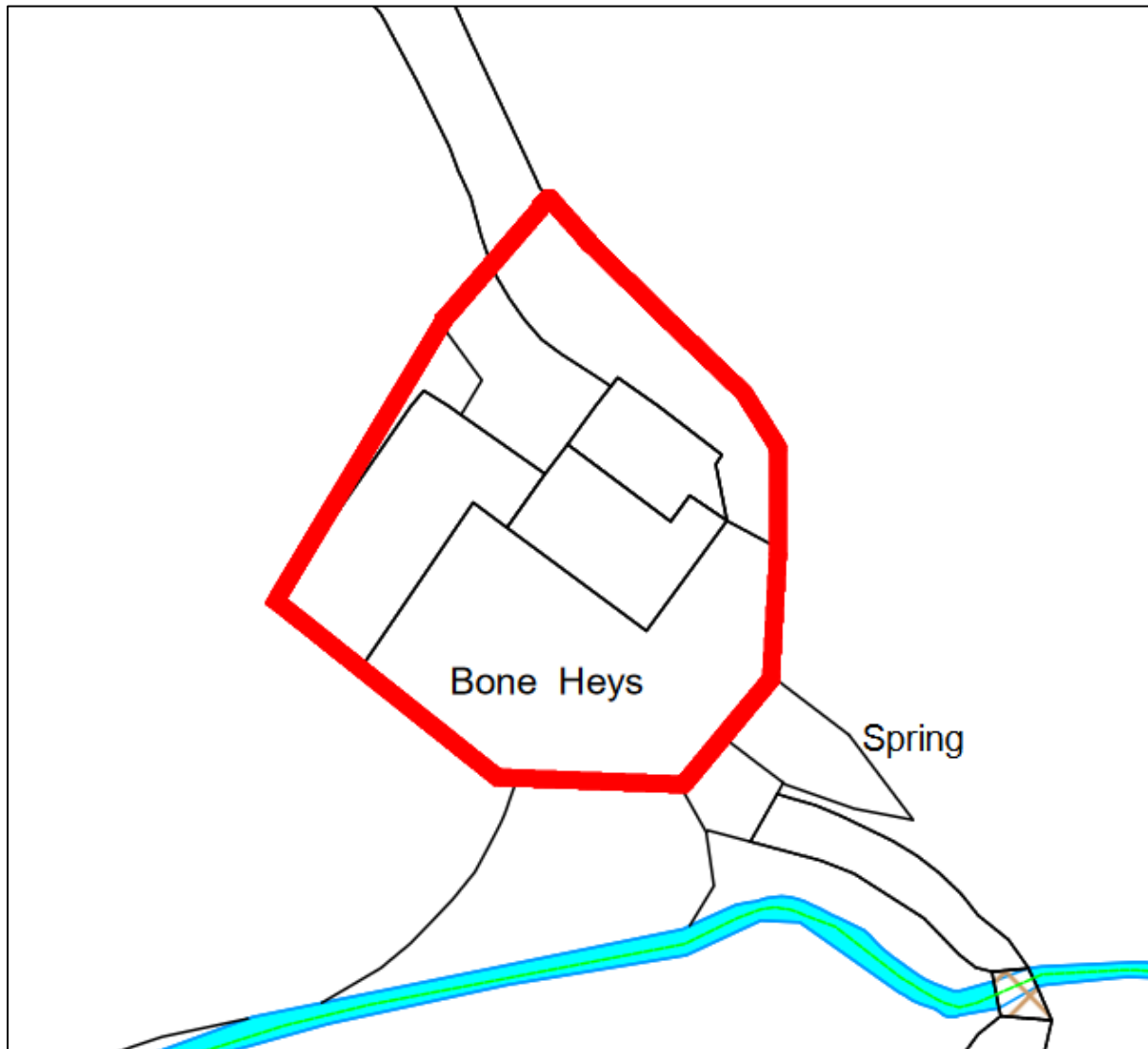


Figure 1.1 – Bone Heys site plan (Source: P. Wilson & Company Chartered Surveyors)

- 1.2 The aim of the survey was to ascertain if the building on site is of value to bats whilst an assessment for birds was also carried out. If any potential roost features (PRFs) 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 will be subsequently impacted by the works then a European Protected Species Mitigation Licence (EPSML) 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.
- 1.7 In accordance with *Biodiversity Net Gain: Good practice principles for development* (CIEEM *et al*, 2019) the site visit also aims to identify enhancement opportunities for biodiversity in line with national and local planning policy.

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 (2019) (EU Exit). When dealing with cases where a European 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 Uses 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 (2019) (EU Exit) (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.*

Birds

- 2.4 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). Birds listed on Schedule 1 of the WCA 1981, for barn owl (*Tyto alba*), are afforded a greater level of protection and are protected also from disturbance.
- 2.5 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.

Policy

- 2.6 Paragraph 180 of the National Policy Planning Framework (as revised in July 2021) 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.

- 2.7 This national focus on the conservation of biodiversity and the natural environment is further echoed in Policy G7 of the Rochdale Core Strategy, entitled 'Increasing the value of biodiversity and geodiversity', which states:

"We will ensure that sites and features of biodiversity and geodiversity importance are given full and appropriate recognition and protection. Opportunities for enhancing biodiversity and geodiversity, creating new sites and features of interest and improving opportunities for public enjoyment will be supported. No development should result in a net loss of biodiversity or geodiversity interest in the borough and overall development in the borough should result in a net gain."

This policy goes on to state:

"It is important to ensure that statutorily protected sites are given very strong protection e.g. the borough's SSSI's, SPA and SAC's. Details in respect of requirements for new developments on or adjacent to the European Protected Sites will be contained within the Allocations DPD. Where a development has the potential to affect the conservation interests of a site protected by European legislation, we will require full assessment of any impacts and mitigation measures, including Habitats Regulations Assessment as well as any required Environmental Assessment. For non-statutorily designated sites, development should not adversely affect its core ecological value and extent and wherever possible avoid and fully mitigate any impacts. Proposals should also take full account of protected species interest and the need to maintain existing population levels and minimise unavoidable impacts on either protected species or their habitats. It should be noted that 'brownfield' sites can be of significant biodiversity interest, and can also contribute to wider ecological networks, and this must be taken into account."

- 2.8 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. 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 & Species Regulations 2019 (EU Exit).

3.0 Protected Species in Greater Manchester

- 3.1 Up to ten bat species have been recorded in Greater Manchester, most of which use built structures, notably occupied residential properties, for roosting. The most frequently encountered species is the Common Pipistrelle bat (*Pipistrellus pipistrellus*) and its abundant status in Manchester is reflected throughout the UK.
- 3.2 All wild birds (with only minor exceptions) and their nests whilst being built or containing eggs or dependant young are protected under the Wildlife & Countryside Act 1981 (as amended). Some species are, however, subject to a greater level of protection, for example the barn owl (*Tyto alba*), 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.

4.0 Survey Methodology

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

Desktop Study

- 4.2 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 (EPSMLs) and species records to further inform conclusions concerning such species in the context of the study site and its proposed development.
- 4.3 Historic satellite imagery was reviewed using sources such as Google Earth (© 2022/23) to help establish past use of the land 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.
- 4.4 A commercial data request to the Local Environment Records Centre serving the area – in this case Greater Manchester Local Record Centre (GMLRC) – has not been sourced and is justified through application of the following recent 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.”

- 4.5 As exemptions as made **bold** above can be applied at Bone Heys, 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, which offers a proportionate level of survey effort. If, however, a data search is considered necessary by the Local Authority advisory body to inform the ecological impact assessment following any further surveys recommended in this report, a proportionate data search should be commissioned with results interpreted into the conclusions and recommendations of a re-issued / updated report.

Field Survey

- 4.6 In context with the above, a diurnal inspection and assessment of the building in relation to bats and breeding birds was conducted on the 01st September 2023 in clear conditions (14 °C), wind 3/12 (Beaufort scale), 25% cloud, by the following surveyor (see **Table 4.1**):

Table 4.1 – Site surveyor credentials

Name	Description of most relevant credentials
Mr. H. Mulligan Qualifying CIEEM	• Junior Ecologist with one year 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).

- 4.7 Bat Conservation Trust (BCT) - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) 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. Where examples are used in the guidelines, they are descriptive rather than prescriptive.”

- 4.8 The bat and breeding bird survey 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 either group was present; the interior was assessed with the aid of a high powered torch for evidence of bat use which mainly includes bat droppings and/or prey items, or incidental presence of live or dead animals, for example, 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, for example.
- 4.9 External elevations were investigated with the aid of 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.
- 4.10 The surrounding habitat was also considered in terms of general suitability for bat and bird species associated with the local habitat types.
- 4.11 Criteria for roost assessment are based upon the determinants given in the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016): (see **Figure 4.1**).

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.		
Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
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 ^a 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 ^b). 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. ^c	Habitat that could be used by small numbers of commuting bats 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 or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^a 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).	Continuous habitat connected to the wider landscape that could be used by bats for commuting 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 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 ^a and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats 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.

^a For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

^b Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten et al., 2015). This phenomenon requires some research in the UK but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.

^c This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

Figure 4.1 – BCT guidelines extract

- 4.12 An assessment of the site was conducted when birds are coming to the end of their breeding season (this is typically March – August inclusive). Trees (if 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).
- 4.13 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 barn owl, a species protected under Schedule 1 of the Wildlife & Countryside Act (1981) (as amended).
- 4.14 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,
 - Presence/absence of roost potential,
 - Value of roost potential – if present.
- 4.15 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. Mulligan.

5.0 Limitations

- 5.1 The survey took place towards the end of both the active bat season and the breeding bird period; whilst sub-optimal, survey timing is not considered a constraint in this instance as evidence of both of these species is still prominent at this time.
- 5.2 All areas of the building could be accessed, and there were no external visual constraints; therefore, having considered possible survey constraints, no significant limitations were experienced that might adversely influence the results, conclusions, and recommendations of this report.

6.0 Desk Study Results

- 6.1 Bone Heys Farm (referred to in-part as “the application site” and “the site”) is located within a small rural farm development between the villages of Newhey to the north-west and Shaw to the south, approximately 5.0 kilometres east of Rochdale town centre (see **Figure 6.1** below).

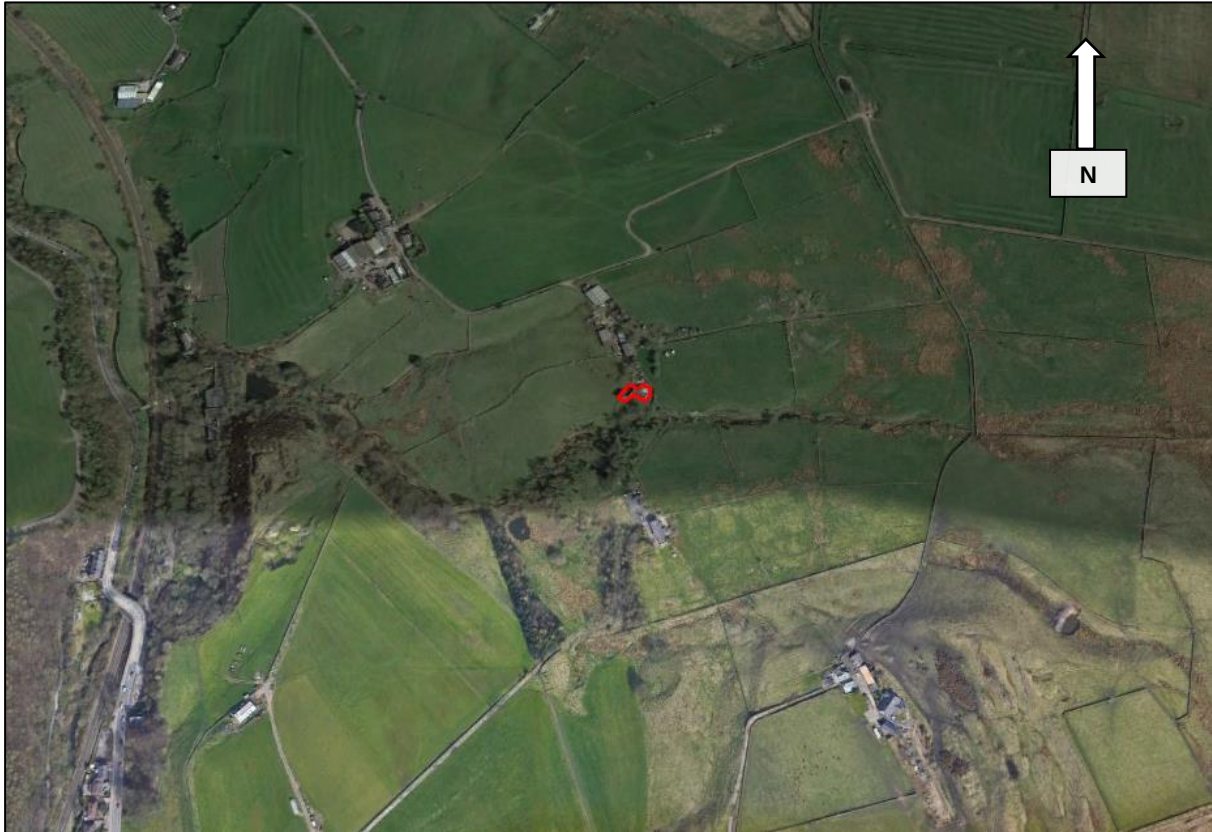


Figure 6.1 – Location of the surveyed building (red boundary) within the landscape (© Google Earth Pro 2022/23)

- 6.2 The immediate habitat in all directions is distinctly rural, with a patchwork of undulating arable fields divided by country lanes, hedgerows, tree lines and small farm developments, while a small spring lined by deciduous woodland extends to the east and west directly to the south of the site. This spring leads towards Shaw Nature Reserve, a large area of woodland and more semi-natural habitats to the west of Bone Heys.
- 6.3 The extending environment continues in similarity to that of the immediate in all directions, with a primarily rural farmland environment; this is divided to the south by the development of Shaw and to the north-west by Newhey, which extends into greater Rochdale. These areas provide more urbanised habitats, with residential developments serviced by typical amenities. The M62 motorway also passes approximately 1.7 kilometres to the north-west. The east of the site extends into a more natural habitat, with areas of lowland fen and blanket bog (both priority habitats) both located within 2.0 kilometres of the site. These habitats are also divided by occasional waterbodies such as Brushes Clough Reservoir, Old Brook and Ogden Reservoir.
- 6.4 Collectively, the immediate and extending aforementioned ecological features should be considered highly favourable, with well-connected ecological networks for bats and birds and connectivity between the application site and extensive grassland, woodland and waterbodies surrounding the site. These corridors of connectivity provide areas for commuting and foraging for bats, with the protected species most typically associated with the habitats described being the common pipistrelle, frequently associated with using buildings, the brown long-eared which

is often located in rural structures, and Daubenton's which are frequently located close to waterbodies.

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.*

- 6.5 There are no statutory designated sites within 2.0 kilometres of the application site, with the closest site being the South Pennine Moors Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Special Area of Conservation (SAC) located approximately 3.1 kilometres to the north-east.
- 6.6 Given the lack of proximity to any statutory designated sites in the wider area and the small scale of the proposed works, there is unlikely to be any direct impact upon any sites or their 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."*
- 6.7 An online search of MAGiC maps revealed that no European Protected Species Mitigation Licences (EPSML) have been granted within a 2.0 kilometre radius of the application site in relation to bats.
- 6.8 A search of biological records submitted to the local record centre serving the area (in this case GMLRC) held by Tyrer Ecological Consultants Ltd revealed an absence of records pertaining to bats within the 2.0km buffer (see **Figure 6.2**).

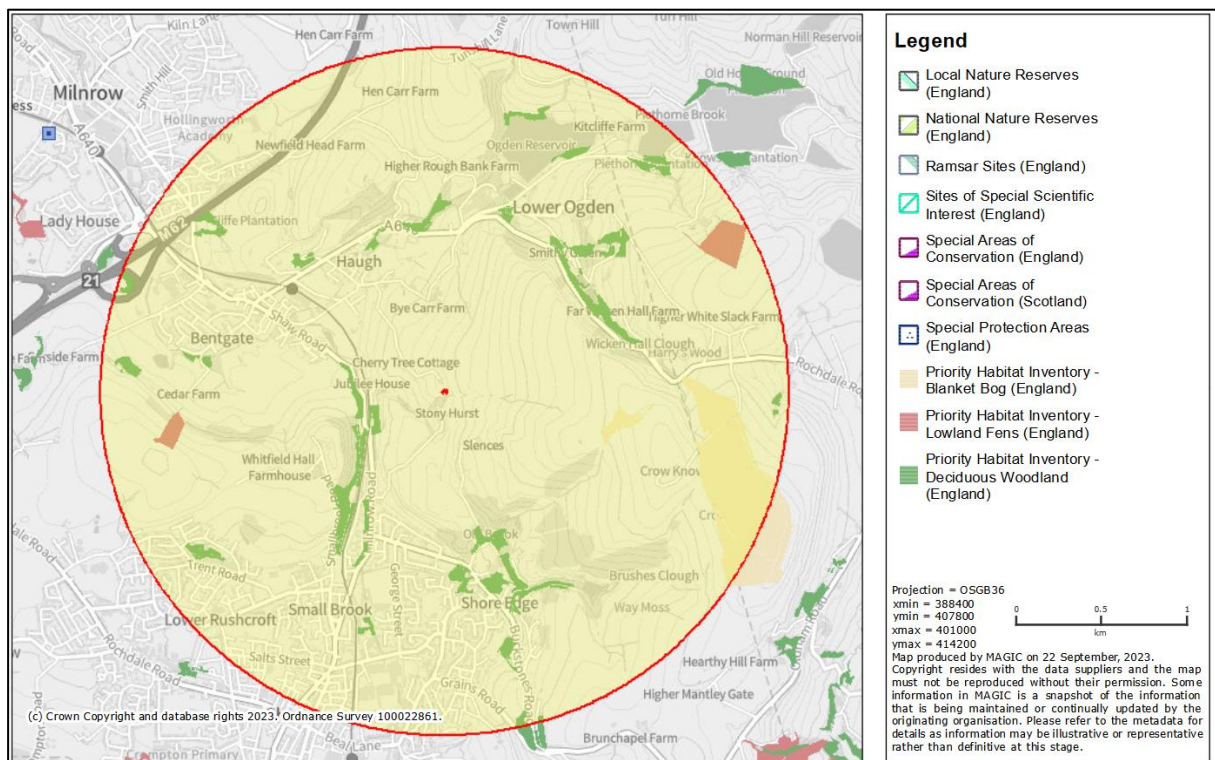


Figure 6.2 – EPSML, designated site and habitat data for the area within 2.0 kilometres of the application site (MAGiC Maps 2023)

7.0 Field Study Results

Bats

- 7.1 The building at Bone Heys Farm is a derelict, stone and breezeblock-built, two storey house; structurally, it features four distinct but interconnected sections (see **Figure 7.1** below), with approximate maximum dimensions of 25 metres x 24 metres x 8 metres. **Table 7.1** overleaf describes each section in respect to its potential to offer roost features for bats (both internally and externally) and includes further information regarding evidence of bats where applicable. In respect of its condition, whilst the surveyor is not qualified to assess structural state, the aesthetic condition of the building was adjudged to be very poor, with various sections collapsed, overgrown and damp internally.



Figure 7.1 – Location of distinct areas within the surveyed building at Bone Heys Farm (adapted from Google Earth Pro 2023)

Table 7.1 – Descriptions of the various sections of the surveyed building at Bone Heys Farm with included bat assessments

Section A
Section A is the most modern part of the building located to the north-east, acting as a garage or storage area; structurally, it features a pitched corrugated metal roof with integrated skylights, with metal capping and fascia present. Internally, Section A lacks any loft space and is thus open to the roof; this section is therefore cool, bright and draughty given the structure and skylights. Section A is considered broadly unsuitable for the breeding requirements of loft-dwelling species such as brown long-eared bat (<i>Plecotus auritus</i>, BLE), as these are species which prefer dark, open loft spaces with consistent thermal conditions. No evidence of BLE bats such as droppings or prey items was encountered despite a meticulous search, although the immediate environment is considered highly suitable for this species, given the abundant woodland in proximity. No underlining is present beneath the roofing in Section A; where present, underfelt or other such roof lining typically improves a buildings value to bats, notably for crevice-dwelling bats of the <i>Pipistrellus</i> genus, whereby the bats roost between the lining and the roof cover material provided external opportunities exist. Again, no evidence of crevice dwelling bats was identified within this section, however this is often the case due to the crevice-dwelling nature of these species. NB: <i>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.</i> Externally, although this section is of a more modern condition than the rest of the building, it offers several Potential Roost Features (PRFs) in the form of crevice opportunities and ingress points beneath the metal capping and fascia, while internally there are numerous internal crevices within the stonework.
Section B
Section B is the main section of the building, which was most recently in active use as a residential dwelling; structurally, it features a pitched, slate roof, timber windows and doors, and open eaves. Internally, this section features two separate loft spaces of near identical structure and character, divided by a partition wall; these spaces are of an open purlin and rafter structure, with an apex of approximately 1.5 metres, and are dark, warm and non-draughty. This section is therefore considered broadly suitable for the breeding requirements of loft-dwelling species. Beneath the roof slates is a breathable roofing membrane (BRM); BRM can be harmful to bats where ingress opportunities exist, whereby the bat's claws become tangled in the fine fibres of the membrane, leading to entrapment and potentially death. Despite being potentially harmful to bats, the presence of BRM does not deter bats from roosting between such a lining and the roofing material hence is considered to increase the perceived value of a structure for crevice dwelling bats. No evidence of either loft- or crevice-dwelling bats was identified despite a search throughout these spaces. Numerous PRFs were identified on this section during the diurnal inspection, with gaps beneath the slates at the gable verges and ingress opportunities at the open eaves, which could provide access to the internal space and between the roof lining and slates.

Section C
Section C is the most northeasterly part of the building, which appears to have been subject to works more recently than the majority of the structure; this area was previously used as storage, and structurally features a pitched roof which is of a corrugated metal construction with an integrated skylight to the north-east, and slate covered to the south-west, with timber fascia present. Internally, this section features an open loft space, with an apex of approximately 2.0 metres; the space is cool, draughty, and highly illuminated due to its structure. This section is therefore considered broadly unsuitable for the breeding requirements of loft-dwelling species. An underlining is present beneath the roofing materials. Evidence of use by crevice-dwelling bats was identified within this space in the form of ~100+ droppings, adjudged to be that of a <i>Pipistrellus</i> bat, located on the floor close to the north-western gable wall and on the wall itself, with an abundance of droppings observed within cobwebbing close to the gable apex. Butterfly and moth wings were also observed on the floor, which are typical feeding remains left by bats. PRFs were identified on this section, with gaps beneath the fascia, at the eaves and beneath several lifted slates.
Section D
Section D is the western section of the building, which is almost entirely collapsed and overgrown; structurally, it features a pitched, slate roof, which is only left in approximately 20% of this section due to its dilapidated nature, and as such no loft space or roof lining is present, with the area being permanently open to the elements. Externally, several crevices are present in the stonework of this section, which could potentially provide roosting opportunities for crevice-dwelling species.

- 7.2 Taking into account the high number of potential roosting features, the character of the loft spaces in Section B, the quality of the habitats in proximity, and the droppings located within the loft space of Section C, Bone Heys Farm is duly categorised as offering '**High**' bat roost suitability, in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016).

Breeding Birds

- 7.3 In relation to Schedule 1 (WCA) specially protected bird species such as barn owl, whilst this species may utilise the site in the wider area with hunting habitat provided in the surrounding fields, no evidence of nesting was identified in the building and no other suitable nesting habitat is present at the site, and the proposed application is unlikely to impact upon such species.
- 7.4 In relation to common bird species, historic evidence of nesting was discovered within Section C of the building in the form of faecal splashing. Furthermore, the various PRFs, alongside the open nature of Section D, could feasibly support a wide range of common bird species, particularly during the breeding bird season. The nesting bird season is weather dependent but generally extends between March and September inclusive (peak period March-August).

Invasive Non-Native Species (INNS)

- 7.5 A single INNS, listed as such under Schedule 2 of the Alien Invasive Species Order (IASO) 2019 was located within the site, namely **Himalayan balsam** (*Impatiens glandulifera*). This species was encountered incidentally by the surveyor whilst assessing the site for its bat and

breeding bird suitability and is located in almost every area bordering the building in a dense abundance.

8.0 Conclusions & Recommendations

- 8.1 Based upon the findings of the survey, covered through sections 6.0 – 7.0 of the report and supported by **Appendix I**, the building at Bone Heys Farm is determined to offer ‘**High**’ bat roost suitability in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016), warranting the requirement for further survey effort at the site before an impact assessment can be concluded.

Table 7.3 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	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey ^a (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey. ^b	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn. ^b

Figure 8.1 – BCT extract on roost suitability criteria

- 8.2 It is recommended that three dusk emergence and/or dawn re-entry surveys are conducted at the site during the active season of bats (May – August, extending into September), in order to establish if / how the garage is being used by bats, and if so, identify the species present, abundance, roost locations and flight lines around the site following emergence / re-entry.
- 8.3 The applicant should be aware that, if during the further surveys, evidence is gathered that confirms bat(s) or their roost(s) are found on site and will be impacted upon, then an EPSML may be required to legally commence with the proposals.
- 8.4 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.

- 8.5 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.

- 8.6 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 Trust's 'Bats and Artificial Lighting at Night' guidelines (August 2023) for further information (see **Table 8.1** overleaf):

Table 8.1 – 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 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.

- 8.7 No impacts are applicable in relation to any Sch.1 (WCA) specially protected bird species such as barn owl and no further surveys or recommendations are necessary in relation to specially protected birds.

- 8.8 In relation to common birds, evidence of historic nesting was observed during the inspection in the form of faecal splashing within Section C, while the open nature of the building and the PRFs present could feasibly support a wide range of common species.
- 8.9 In the interests of potential impact avoidance it is recommended that the works should be undertaken outside of the nesting bird season. The nesting bird season is weather dependent but generally extends between March and September inclusive (peak period March-August). For works within the breeding bird season, any areas that can support nesting birds should be checked by a professional Ecologist for nesting birds within 48 hours or less prior to works commencing. If birds are found nesting any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally, for example via the implementation of an appropriate buffer zone (species dependent) around the nest in which no disturbance is permitted until the nest is no longer in use.

NB: *All wild birds (with only minor exceptions) and their nests whilst being built or containing eggs or dependant young are protected from destruction, damage and disturbance under the Wildlife & Countryside Act 1981 (as amended). It is a punishable offence to interfere in any way with an active nest.*

Invasive Non-Native Species (INNS)

- 8.10 A single INNS was identified on site by the surveyor – Himalayan balsam. Whilst it is not illegal to host any of these species within your garden, it is an offence, under current legislature, to knowingly permit the spread of INNS beyond the confines of your site, either via allowing it to grow unchecked or through the irresponsible removal and dumping of waste. It is recommended this species be treated/removed as part of the planning permission process with measures outlined by planning condition.
- 8.11 General recommended ideas to enhance the site in accordance with the principles of 'Biodiversity Net Gain: Good practice principles for development' (CIEEM *et. al.*, 2019), are presented in **Appendix III**.

9.0 Bibliography

- **Bat Conservation Trust (BCT)**, 2018. *Bats and artificial lighting in the UK: Bats and the Built Environment series*. Available from:
- **CIEEM et al**, 2019. *Biodiversity Net Gain: Good practice principles for development*. Available from: www.cieem.net/data/files/Publications/Biodiversity_Net_Gain_Principles.pdf
- **CIEEM**, 2016. *Guidelines for Ecological Impact Assessment in the UK and Ireland*, 2nd edition. Available from: www.cieem.net/data/files/Publications/EcIA_Guidelines_Terrestrial_Freshwater_and_Coastal_Jan_2016.pdf
- **CIEEM**. 2020. *Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK*. 2nd Edition. Chartered Institute of Ecology and Environmental Management. Winchester, UK
- **CIEEM**, 2017. *Guidelines for Preliminary Ecological Appraisal*, 2nd edition. Available from: www.cieem.net/data/files/Publications/Guidelines_for_Preliminary_Ecological_Appraisal_Jan2018_1.pdf
- **Collins, J** (ed.), 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, 3rd edition. The Bat Conservation Trust, London.
- **Communities & Local Government (C&LG)**, 2018. *National Planning Policy Framework*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/60777/2116950.pdf
- **Gunnell, K. Grant, G. and Williams, C.** 2012. 'Landscape and urban design for bats and biodiversity'. Bat Conservation Trust.
- **Magic Maps Application**, 2022/23. Available from: www.natureonthemap.naturalengland.org.uk/MagicMap.aspx
- **Mitchell-Jones, A.J. and McLeish, A.P.** (Eds) (2004). *Bat Workers' Manual*, Joint Nature Conservation Committee, Peterborough.

Appendix I: Site Photographs



Plate 1 – Bone Heys Farm as seen from the north, with Sections A-C seen from left to right



Plate 2 – South-west of the building, with Section B in centre and Section D to the left



Plate 3 – *Further angle of Section D, with collapsed nature evident*



Plate 4 – *North-western aspect of Section D, with abundant Himalayan balsam bordering*



Plate 5 – South-western aspect of the structure, with Section D to left and Section B to right



Plate 6 – Internal character of Section A



Plate 7 – *Potential internal crevices within Section A*



Plate 8 – *Character of the loft spaces above Section B*



Plate 9 – *Internal character of the loft space of Section C*



Plate 10 – *Bird faecal spashing, bat droppings and feeding remains located on the floor of Section C*



Plate 11 – *Large number of bat droppings located on the gable wall of Section C*



Plate 12 – *Internal nature of Section D*



Plate 13 – *Gaps beneath capping on Section A*



Plate 14 – *Open eaves located on Sections B and C*



Plate 15 – *Gaps beneath the slates of the gable elevation of Section B*

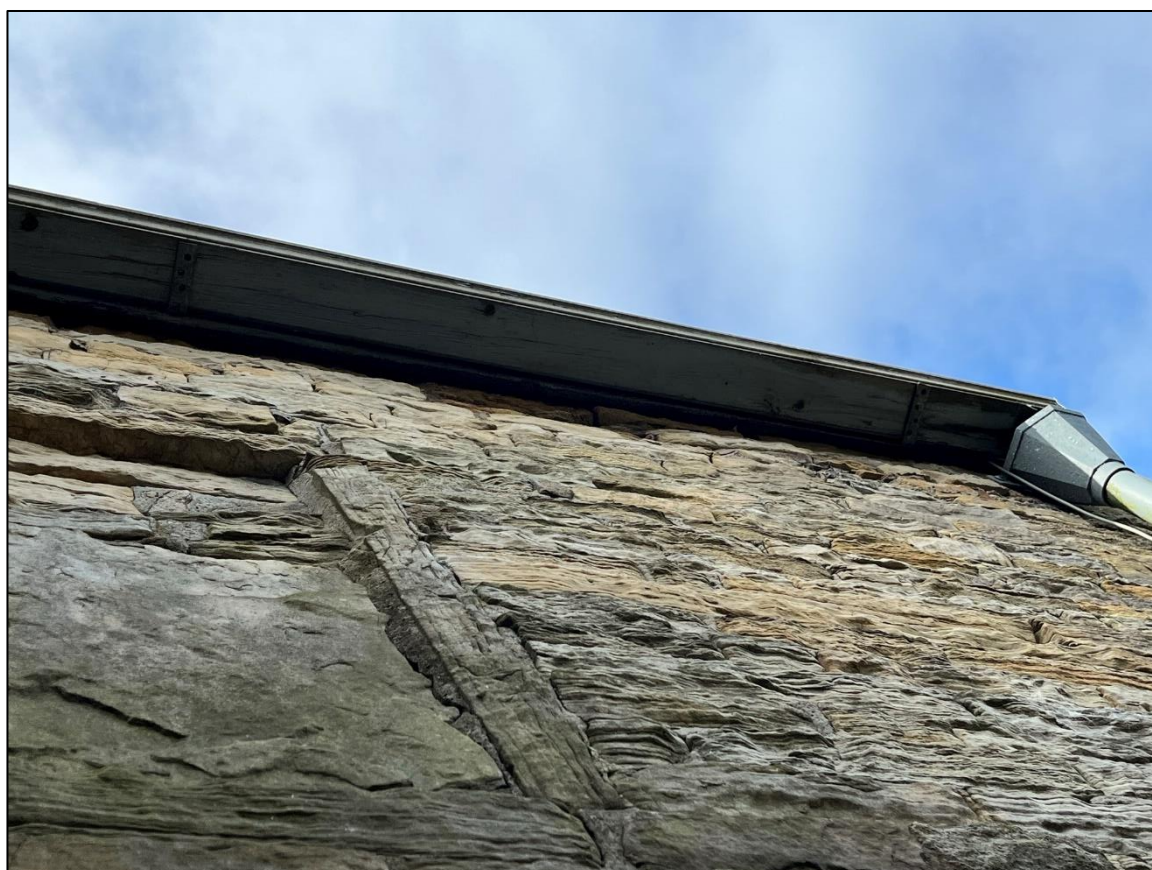


Plate 16 – *Gap beneath fascia of Section C*



Plate 17 – Gaps in the brickwork of Section D



Plate 18 – Brook directly to the south of the site



Plate 19 – Extending grassland to the west of the site, with dense *Himalayan balsam* to the left



Plate 20 – Dense *Himalayan balsam* at the north of Bone Heys Farm

Appendix II: Biodiversity Enhancement: General Recommendations

Indicative Enhancement

Bats

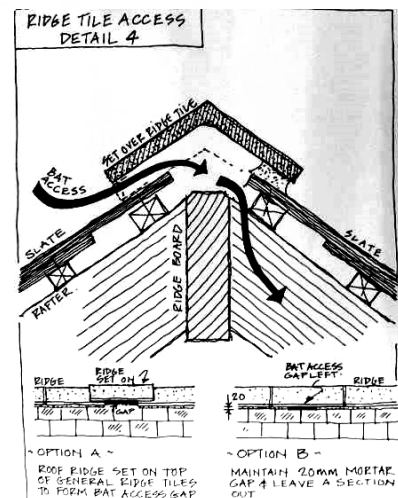
Integrated bat box

The Habibat Bat Box is a solid box made of insulating concrete with internal roosting space. The box blends seamlessly into brick-built properties and may be incorporated into the fabric of buildings, being best placed on gable elevations.



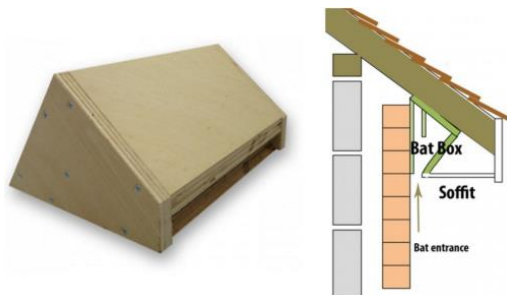
Ridge access

Where appropriated, ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping and killing bats.



Soffit access

Where soffits are instated at gable elevations, roost provision may be instated in the form of a soffit bat box with internal roosting space.



Externally fitted boxes

A large number of externally fitted box models for bats exist for buildings and trees. Suitable models for both buildings and trees may include the Eco Kent Bat Box.



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 - 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.



Invertebrates - Bee bricks

The Bee Brick can be used in place of a standard brick or block in construction to create habitat for solitary bees. Alternatively, it can be used as a standalone bee house in your garden or wild patch. It will provide much needed nesting space for solitary bee species such as red mason bees and leafcutter bees, both of which are non-aggressive.

Each Bee Brick contains cavities in which solitary bees can lay their eggs before sealing the entrance with mud and chewed-up vegetation. The offspring will emerge the following spring and the cycle will begin again. Each cavity goes part way into the brick, which is solid at the back. Bee Bricks should be placed in a warm sunny spot on a south-facing wall at a minimum height of 1m, with no vegetation obstructing the holes. It is highly recommended that bee-friendly plants should be located nearby so that the bees using the bricks have food, otherwise it is unlikely that the brick will be used.

Available in a choice of four colours: white grey, dark grey, yellow and red.

Specification

- * Material: Concrete
- * Origin: Cornwall, UK
- * Dimensions: W 215mm x D 105mm x H 65mm
- * Weight: 2.9kg
- * Colours: White grey, yellow, dark grey and red



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 (*Viburnum 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 (<i>Quercus robur</i>)	Hawthorn (<i>Crataegus monogyna</i>)
Rowan (<i>Sorbus aucuparia</i>)	Honeysuckle (<i>Lonicera periclymenum</i>)
Wild Service Tree (<i>Sorbus torminialis</i>)	Guelder Rose (<i>Viburnum opulus</i>)
Silver Birch (<i>Betula pendula</i>)	Elder (<i>Sambucus nigra</i>)
Ash (<i>Fraxinus excelsior</i>)	Wild Privet (<i>Ligustrum vulgare</i>)
Goat Willow (<i>Salix capraea</i>)	Blackthorn (<i>Prunus spinosa</i>)
Beech (<i>Fagus sylvatica</i>)	
Wild Cherry (<i>Prunus avium</i>)	