Fraser Davies

Tall Timbers, Pistyll Hill, Marford,

Wrexham LL12 8LE

Bat and Bird Survey Report

May 2025



Produced by Wildbanks Conservation

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REPORT VERIFICATION AND DECLARATION OF COMPLIANCE

Report Version	Date	Completed by:	Checked by:	Approved by:
Final	16/05/2025	Tanya Cobb		M. Smith

The information we have prepared is true and we confirm that the opinions expressed are our true and professional bona fide opinions.

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1.0 INTRODUCTION

1.1 This report has been prepared on behalf of Fraser Davies and provides the results of a Potential Roost Assessment (PRA) and Nocturnal Bat Activity Survey undertaken on the residential property at Tall Timbers, Pistyll Hill, Marford, Wrexham LL12 8LE (approximate OS Grid Ref: SJ 36123 55302) in May 2025.

1.2 The Preliminary Roost Assessment (PRA) was required to establish the presence or potential presence of roosting bats, and nesting birds, within the property, identify potential constraints to the proposal, and provide mitigation measures where relevant. If a bat or its roost/place of rest or shelter is identified and subsequently affected by the works, then a European Protected Species Development Licence, issued by Natural Resources Wales (NRW), would be required to proceed with the development.

1.3 In addition to roosting potential, the Site and surrounding habitat may also be used by bats for foraging and commuting, or birds for breeding and nesting. Any loss or fragmentation of linear features or foraging areas (e.g. woodland edges, hedgerows, or open glades) should be assessed in terms of ecological functionality, with mitigation or enhancement measures proposed where necessary to maintain habitat connectivity and minimise disturbance, particularly from lighting.

1.4 The property in question comprises a detached house and two garages and is defined by the redline boundary shown on Figure 1. The house and garages are being renovated into one residential property. The footprint of the property will be altered. The property is from this point referred to as the "Site".

2.0 SITE DESCRIPTION

2.1 The Site is situated in Marford town and surrounded by residential properties to the north, west and south, and farmland and woodland to the east. The wider landscape includes mostly farmland, with scattered woodland, Maes y Pant Nature Reserve 500m to the west and Wrexham town centre 5.5km to the south.

2.2 The immediate habitat surrounding the site is considered to be of moderate foraging value to bats and the wider landscape is considered high foraging value.



Figure 1. Plan with approximate development boundary outlined red. (Base image © Google Maps 2025)

3.0 SURVEY METHODOLOGY

3.1 To inform this Preliminary Roost Assessment, a desk-top study and visual assessment were undertaken in line with Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2023).

Desk Top Study

3.2 A desk top study was undertaken by Wildbanks Conservation Ltd using the following online resources for background information of the Site.

- MAGIC website
- Ordnance Survey maps
- Aerial photographs

3.3 **Building Visual Assessment**

Bats

3.3.1 The exterior of all aspects of the building were visually assessed for potential roost features (PRFs), potential access points and evidence of bat activity. With the aid of binoculars and endoscopes, features such as gaps in brickwork, small gaps under barge/soffit/fascia boards, raised or missing roof/ridge tiles or gaps at gable ends, which have the potential for use as roosts/access points, were sought. Evidence that bats actively used these PRFs/access points would include staining within the gaps, or bat droppings or urine staining under gaps; a note being made wherever these were present. The presence of cobwebs and/or general detritus within and around PRFs was used as an indicator that bats had not recently used the area to access the building. Following the external assessment, an internal assessment of the building was undertaken, searching for the same evidence.

3.3.2 *Birds*

The building was assessed for nesting birds at the same time as the bat visual assessment. All cracks, gaps and potential nesting areas were checked for the presence of nests/nesting material/live birds.

3.4 **Nocturnal Bat Activity Survey**

3.4.1 One nocturnal survey was undertaken on the building to observe if bats are roosting within the building. All surveys were overseen by Mick Smith, 17 years' experience in bat ecology, holder of NRW bat licence (licence no: S092489/1) and 20 EPS Mitigation licenses (NRW and NE). With onsite survey lead being Chris Gossett (NE bat license 2016-23935-CLS-CLS), Surveyors were positioned strategically so that good coverage of all aspects of the building was achieved. The survey was undertaken within the optimum time for bat activity (May-September) and under optimum conditions.

3.4.2 The surveyors each used an Anabat Walkabout, and a pair of Flir Scion thermal video cameras and/or Nightfox Whisker infrared cameras. Any recordings were analysed using Anabat Insight, and video footage from the thermal/infrared cameras was reviewed using VLC media player.

3.4.3 The surveys were undertaken following methodology set out Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2023).

Table 1: Nocturnal survey carried out as follows:

Survey	Date	Surveyors
Dusk	12/05/2025	Tony Medcalf (NRW bat license S092201/1), Chris Gossett (NE bat license 2016-23935-CLS-CLS), Tanya Cobb & Joe Carroll

3.5 **Limitations**

There were no limitations to the visual assessment or nocturnal survey. May is within the optimal survey season to assess whether bats or birds are using a building and the weather for the nocturnal survey was acceptable. The whole exterior and interior of the building was visible during the visual assessment.

4.0 RESULTS

4.1 Desk Top Study

4.1.1 One statutory designated site exists within 1km of the Site.

- Marford Quarry SSSI

  A disused sand and gravel working designated for its entomological interest. A large diversity of lepidopteran species has been recorded including one butterfly and four moth nationally rare species. The butterfly list is particularly diverse with around thirty individual species being recorded and is significant in a county context (NRW, 1989).

4.1.2 One local, non-statutory nature reserve exists within 1km of the Site.

- Maes y Pant Nature Reserve

  Wooded former quarry privately owned by a local, community charity.

4.2 Building Visual Assessment

Bats

4.2.1 The property consists of a detached brick bungalow, with an upper room set in the roof with dormer windows, and a flat roof, single storey extension to the northeast. There are two detached garages to the west of the bungalow. Both garages are brick-built; one with pitched roof (Garage 1) and one with corrugated cement board roof (Garage 2). The bungalow is occupied and well-sealed internally.

4.2.2 The building is in overall good condition with few potential roost features (PRFs) for crevice dwelling bats (e.g., Pipistrelle sp., Myotis sp.) and no access for free flight species such as brown long eared bats.

4.2.3 The loft space is small (approx. 2.5m x 2.5m with a ridge height of 1m) with little light ingress through holes that are too small for bats to access through (plate 4). Roof slates previously affixed with lime mortar but this has broken away. No roofing membrane is present. No signs of bat use visible within the loft however; mouse droppings are present.

4.2.4 The external brickwork of the building is in good condition with no gaps into the building. The timber work around the property is in poor to average condition. The main soffit box

around the house is well sealed to bats (plate 5). Four potential roost features can be found where there is raised lead and timber work around each dormer window. A gap is present between the end of the timber and where it joins the roof (plate 6). This gap is present on all three dormer windows, two of which are smaller than others and as such not considered PRF's. The timber work above the bay window is incomplete providing bat access into an inaccessible roof cavity (separate area to the loft space) (plate 7), but no evidence of bat use was identified. The roof of the house is in good condition. One additional potential roost feature was identified by a single raised ridge tile, where the mortar has broken away (plate 8), providing possible bat access under this tile. The house is categorised as having low potential for roosting bats.

4.2.5 Garage 1 is in good condition and offers limited potential for roosting bats. The internal roof structure consists of intact lime mortar and is well-sealing to bats (plate 9). One potential roost feature exists where the mortar verge, on the southeastern aspect of the garage, has partially broken away, providing access under the roof slates (plate 10). The gap is large which offers light ingress into the cavity, decreasing its potential roosting quality. Garage 1 is categorised as having negligible/low potential for roosting bats.

4.2.6 Garage 2 is in poor condition with weather and light ingress into the building through the roof and rotting timber work (plate 11). These holes into the garage provide access for bats, however, no potential roost features exist internally, therefore, Garage 2 holds negligible potential for roosting bats.

4.2.7 The structure of the buildings (e.g. no access to the loft space or cavity walls) and lack of suitable features mean that the property has no opportunities for hibernating bats.

Birds

4.2.8 No nesting material or evidence of nesting birds were found within or on the buildings. Mature hedgerows exist all boundaries to the property that offer nesting opportunities to birds, however, no evidence of nesting birds was observed during the visual assessment, in the form of birds traversing the site with nesting or food material.

4.3 **Nocturnal Bat Activity Survey**

4.3.1 One nocturnal survey was undertaken, and details can be found in Table 2 below and Figure 2.

Table 2: Details of nocturnal survey undertaken.

Date	Survey type	Time started	Time finished	Sunset time	Temp.	Weather conditions
12/05/2025	Dusk/ Emergence	20.43	22.58	20.58	15°C	Dry, warm, calm

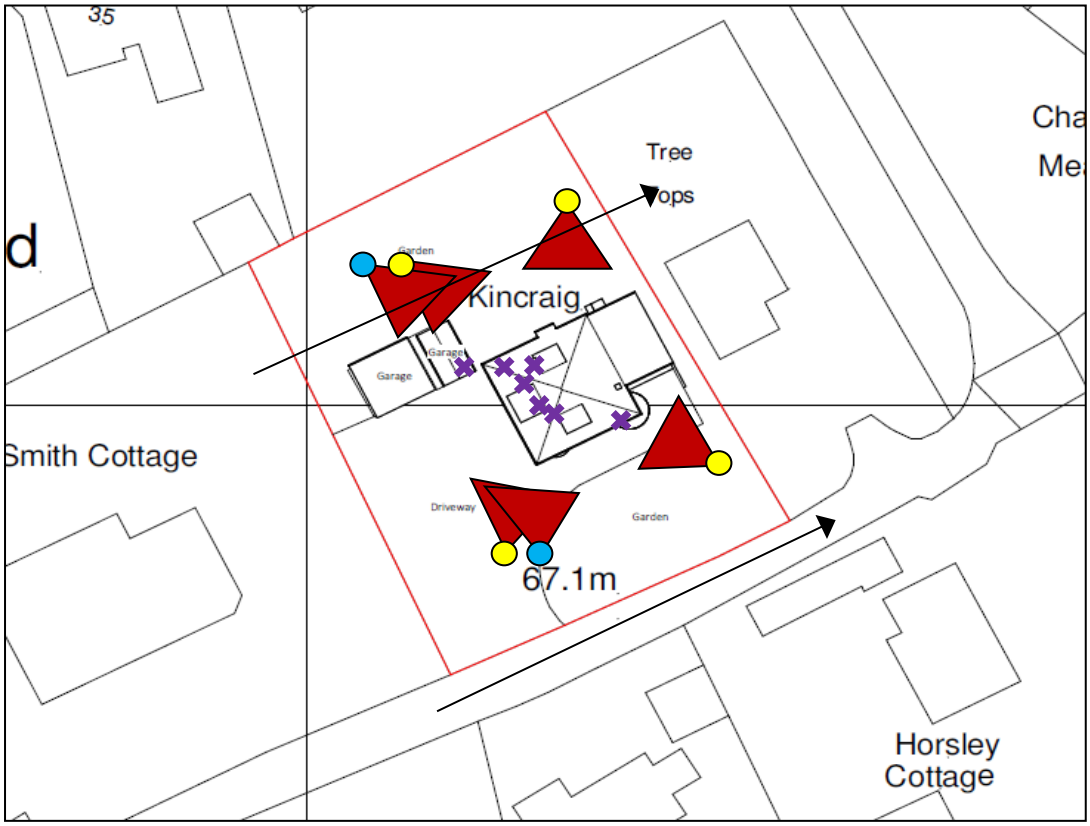


Figure 2. Site plan showing surveyor locations (yellow circle), night vision aid (NVA) locations (blue circle), field of view for each surveyor and NVA (brown triangle) and direction of bat passes throughout the nocturnal survey (green arrow). All potential roost features shown with purple cross, dictating position of NVAs so all were visible during the survey.

4.3.2 **Survey 1** - *Dusk survey 12th May 2025*

No emergences were recorded from the building. Bat activity during the survey was minimal. The first bat recorded was a commuting Soprano pipistrelle (*Pipistrellus pygmaeus*) 26minutes after sunset at 21.24 that commuted along the lane to the south of the property. Remaining activity was brief commuting passes of Common pipistrelle (*Pipistrellus pipistrellus*), Brown long-eared (*Plecotus auritus*) and Natterer's bats (*Myotis nattereri*) along the

northwestern boundary of the building, from south to north, and Noctule (*Nyctalus noctula*) bats commuting along the lane to the southeast.

4.3.3 It is considered that the level of survey effort undertaken is sufficient to assess the use of the buildings by bats. No bat roost is located within the buildings on Site.

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 The Site has been subject to a Potential Roost Assessment (PRA) on 8th May 2025 and a Nocturnal Bat Activity Survey on 12th May 2025 overseen by Mick Smith (NRW bat licence number: S092489/1).

5.2 The immediate habitat surrounding the site consists of residential properties, and woodland. This is considered to be of moderate foraging value to bats and the wider landscape of farmland and scattered woodland is considered high foraging value.

5.3 The building is in overall good structural condition and well-sealed with few PRFs. These are limited to access points between the lead work and timber of the dormer window roof, a single raised ridge tile on the western ridgeline and section of wide-open verge access under the roof slates of Garage 1. No evidence of bat use of these features was found during the visual assessment. The property is classified as **low potential for roosting bats**.

5.4 **No bats were recorded emerging from the building** during the nocturnal survey. General bat activity throughout the survey was low with solely commuting bats passing through the property. The survey was completed following National guidelines by NRW and NE licensed bat surveyors with the aid of night vision aids.

5.5 No evidence of nesting birds was recorded using the buildings; however, potential nesting habitat exists within all boundary hedges and mature trees of the Site.

5.6 **Recommendations**

Bats

5.6.1 Bats were not found to be roosting within the property following the visual assessment and nocturnal survey. No further survey work is recommended for bats.

5.6.2 As no bat(s)/evidence of use by bats was found, a European Protected Species licence will not be required for renovation works. The works can be carried out at any time of year.

5.6.3 If any bats are found during works, works must stop immediately, and the site ecologist will be contacted, and advice sought: **Wildbanks Conservation; 01691 623505.**

5.6.4 Planning Policy Wales (PPW12) requires development to provide a Net Benefit to Biodiversity (NBB) i.e. a better outcome than if the site would be left undeveloped. As no bat roosts currently exist within the property, it is recommended that an integrated bat roost features be installed within the building, to improve the long-term opportunities for roosting bats on site.

5.6.5 Integrated roost feature as follows:

- Vivara Pro Build-in WoodStone® Bat Box, or similar, to be installed within brickwork on the eastern elevation, at the apex to the gable end. Location can be found on figure 3 and 4.

Birds

5.6.6 As nesting opportunities exist within the property and the timing of the works is unknown, if works to the property are to take place within the bird breeding season then a nesting bird check should be carried out to ensure that birds have not started nesting within the property or areas that could be affected by the development since the writing of this report. If nests are identified, the nests must remain intact and undisturbed until young have fledged.

5.6.7 If no evidence of nesting birds was found, the works can be carried out at any time of year.

5.6.8 Two integrated nest boxes will be installed within the building to improve the long-term nesting opportunities for birds on site. Integrated boxes as follows:

- 2 x Vivara Pro WoodStone® House Sparrow Nest Box, or similar; one installed within brickwork on the northern elevation, at the apex to the gable end and one under the eaves on the western elevation. Locations can be found on figure 3 and 4.

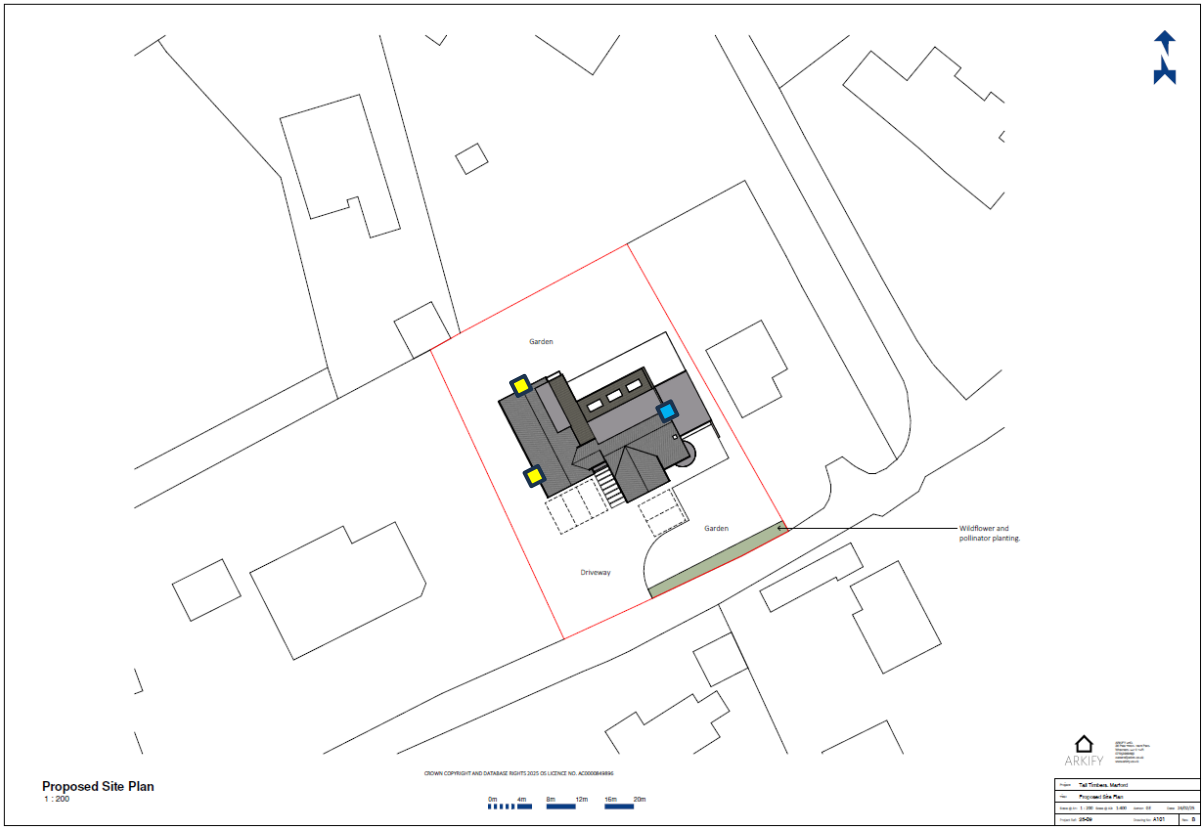


Figure 3: Site plan showing bat (blue square) and bird (yellow square) box locations.



Figure 4: Site plan showing bat (blue square) and bird (yellow square) box locations.

6.0 REFERENCES

- Collins, J (ed.). 2023. *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)*. The Bat Conservation Trust. London.

- Natural Resources Wales (NRW) (1989) *Site of Special Scientific Interest Citation: Marford Quarry*. NRW Available at: https://nrwcmsv13-a3hwekacajb3frbw.a02.azurefd.net/634447/SSSI_0066_Citation_EN001ebb7.pdf

A1 APPENDIX – SITE PHOTOGRAPHS



Plate 1: The southeastern aspect of the building.



Plate 2: The northwestern aspect of the building.



Plate 3: The northwestern aspect of the two garages.

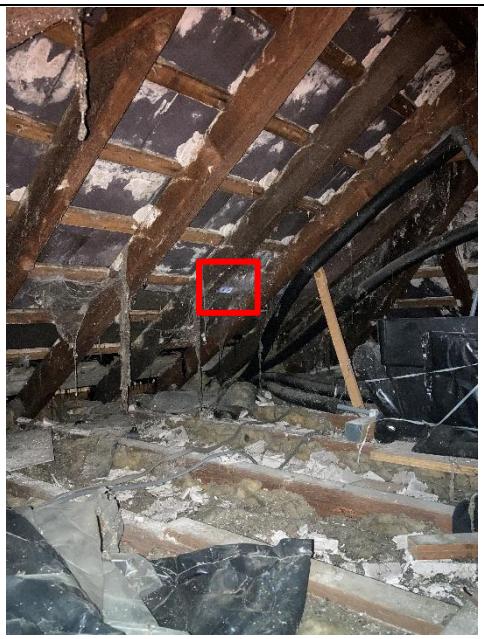


Plate 4: Internal view of the loft space. Note no roofing membrane under roof tiles and lime mortar has all but broken away. Small areas of light ingress, too small for bat to access.



Plate 5: Soffit box around property in average condition but well-sealed to bats.

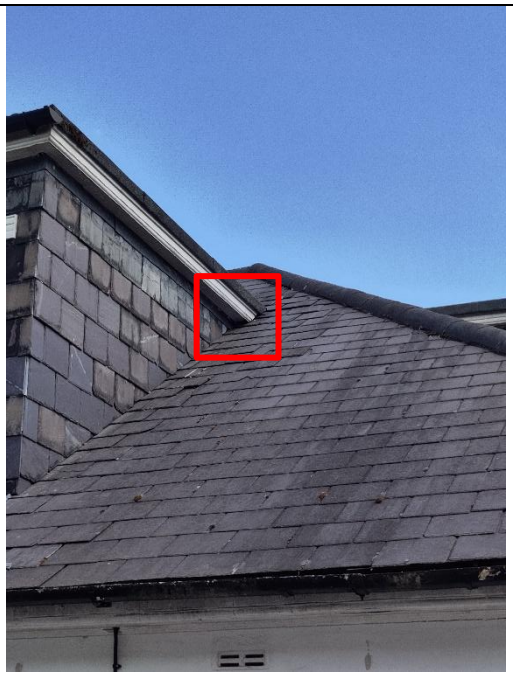


Plate 6: Gap where dormer window soffit box joins the roof. This gap is present on all three dormer windows at every connection point to the roof. Gap provides bat access into soffit box.



Plate 7: Gap above bay windows into roof cavity. No evidence of bat use present.



Plate 8: Single raised ridge tile where mortar has broken away, providing bat access to western ridgeline.

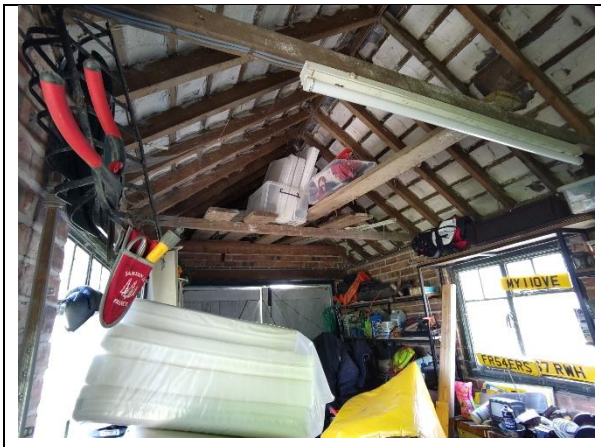


Plate 9: Internal roof structure of Garage 1. Lime mortar intact and well-sealed to bats.



Plate 10: Gap under roof slates where mortar has broken away on Garage 1.



Plate 11: Garage 2 in disrepair with weather and light ingress into building. Holes within timber work provide bats access to internal garage but no roost features present internally.

A2 APPENDIX – LEGISLATION AND PLANNING POLICY

A2.1 All bat species are protected by European and/or UK legislation because of their decline across Europe and the UK. When undertaking an appraisal of a proposed development, such legislation is taken into account as follows.

- European: Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive'); and Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds (codified version of Directive 79/409/EEC as amended) (the 'Birds Directive').

- UK (England & Wales): The Conservation of Habitats and Species Regulations 2010, as amended (the 'Habitat Regulations') which transposes the Habitats Directive in UK law; The Wildlife and Countryside Act 1981 (as amended); the Countryside and Rights of Way Act (CRoW) 2000; the Protection of Badgers Act 1992; the Natural Environment and Rural Communities Act (NERC) (2006) and the Environmental Protection Act (EPA) 1990.

A2.2 Species such as bats (all UK species) are also protected in the UK under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

A2.3 It is an offence to damage or destroy a breeding site or resting place; intentionally or recklessly damage, destroy, or obstruct access to a place used for shelter or protection and to possess, advertise control, transport, sell, exchange or offer for sale/exchange any live or dead animal, or any part of one, listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

A2.4 All UK bat species and GCN are also referred to as European Protected Species (EPS) under the Conservation of Habitats and Species Regulations 2017.

A2.5 If work is proposed that would affect a European Protected Species, then a licence from Natural Resources Wales (NRW) will be required. Natural Resources Wales (NRW), in exercise of the powers conferred under regulation 53(1) and 56(3) (a) of the Conservation of Habitats and Species Regulations 2010, may issue licences for the following purposes:

- Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;

- Preventing the spread of disease; or

- Preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other form of property or to fisheries; to allow people to carry out activities which would otherwise be illegal.

A2.6 Before issuing a licence under the Habitats Regulations, the licensing authority must be satisfied that "there is no satisfactory alternative" to the work as proposed and, that the proposed actions "will not be detrimental to the maintenance of the population of the species at a favourable conservation status (FCS)".

A2.7 To ensure these requirements are met, the licensing authority must have enough information to complete an assessment of the application. This includes sufficient survey data so that the roost and how it is used by bats is understood and impacts upon the roost are appropriately assessed so that mitigation and/or compensation can be designed into the proposed development that will ensure the bat population can be incorporated and maintained in the long term.

A2.8 Seven bat species are UK BAP Priority Species. These are as follows:

- Barbastelle *Barbastella barbastellus*
- Bechstein's *Myotis bechsteinii*
- Brown long-eared *Plecotus auritus*
- Greater horseshoe *Rhinolophus ferrumequinum*
- Lesser horseshoe *Rhinolophus hipposideros*
- Common noctule *Nyctalus noctula*
- Soprano pipistrelle *Pipistrellus pygmaeus*

Birds

A2.9 All wild bird species, their eggs and nests are protected under Wildlife and Countryside Act 1981 (as amended). You must always try to avoid harming birds

or to use measures which do not kill or injure them before considering taking harmful action.

A2.10 It is an offence to intentionally kill, injure or take wild birds, intentionally take, damage or destroy a wild bird's nest while it's being used or built, intentionally take or destroy a wild bird's egg, possess, control or transport live or dead wild birds, or parts of them, or their eggs, sell wild birds or put them on display for sale, use prohibited methods to kill or take wild birds.

A2.11 Some birds, have additional legal protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). For these bird species it is also an offence to disturb them while they're nesting, building a nest, in or near a nest that contains their young or disturb their dependent young.

A2.12 The Birds of Conservation Concern (BoCC5) (Stanbury et al., 2021) is also taken into consideration when undertaking this appraisal.